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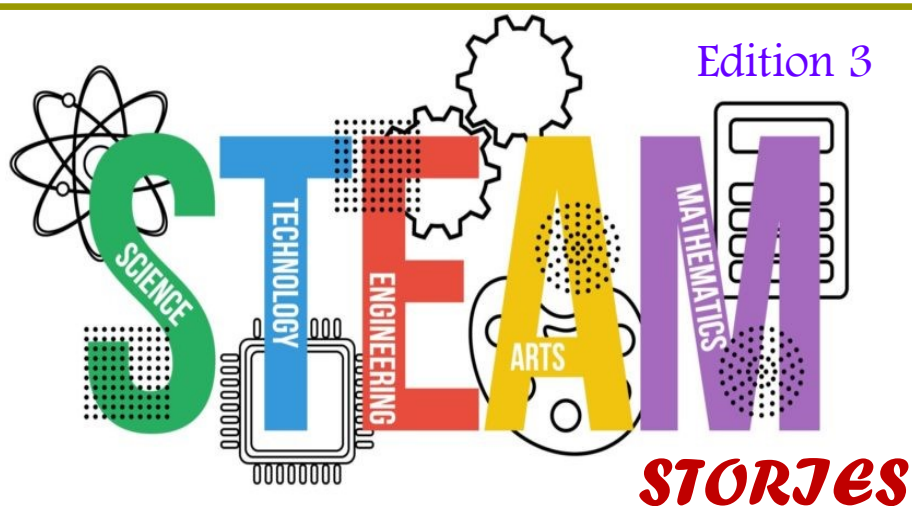
SHE STEM 2021 7



**Geeta Gangwani**  
Principal

**"At its heart, engineering is about using science to find creative practical solutions. It is a noble profession"- Queen Elizabeth**

Engineering is an elemental part of the 21st century problem-solving skills that Bal Bharati Public School Rohini aims to inculcate in its students. We believe the future generation has to be fortified in design thinking and innovation to create a world that never ceases to advance. The "E" of Engineering is nothing but the imperative aim of curating future ready Global citizens. With this third edition of our successful STEAM Stories, we bring to you an expression of our students' constructivist approach and their mobilized masterminds.



**"E" for Engineering**

Dear Readers,  
We bring to you our special series on STEAM stories, a display of our students' work in using multidisciplinary and experiential learning. This special series comprises of five different editions-each emphasizing on the individual element . Here is the Edition 3 which deals with Engineering .

**METAMORPHOSIS OF YOUNG MINDS WITH ATAL TINKERING LABS**

Contraption Jugaad... a buzzword in the Indian corporate world!! 4 tyres, wooden cart, a radiator, a few springs, an old jeep clutch and voila!! A poor, illiterate farmer creates an ingenious, innovative vehicle. Our jugaad innovations are a testimony to the fact that we have some of the best brains in the world. India's ability to make technology affordable is one of the biggest contribution to the world.

But, what is it really about innovation which makes it indispensable? Well, we all realize that the world is changing, quicker than ever before. The top economies of the world are driven by innovation, and we Indians cannot afford to fall behind. Without a doubt, innovation is a means of creating sustainable and cost effective solutions.

**Highlighting the importance of innovation, Prime Minister Narendra Modi has said "Innovation is the need of the hour, for every society and every era."**

The Atal Tinkering Laboratories (ATLs) have turned out to be such open innovation spaces, where students are facilitated with electronics, stationary, laptops, internet and a mentor with the objective of fostering curiosity, creativity and imagination in young minds; and inculcating skills such as design mindset, computational thinking, adaptive learning, physical computing etc. These laboratories expose young minds to recent advances in STEM, encourage them to think out of the box and ultimately, create unique solutions.

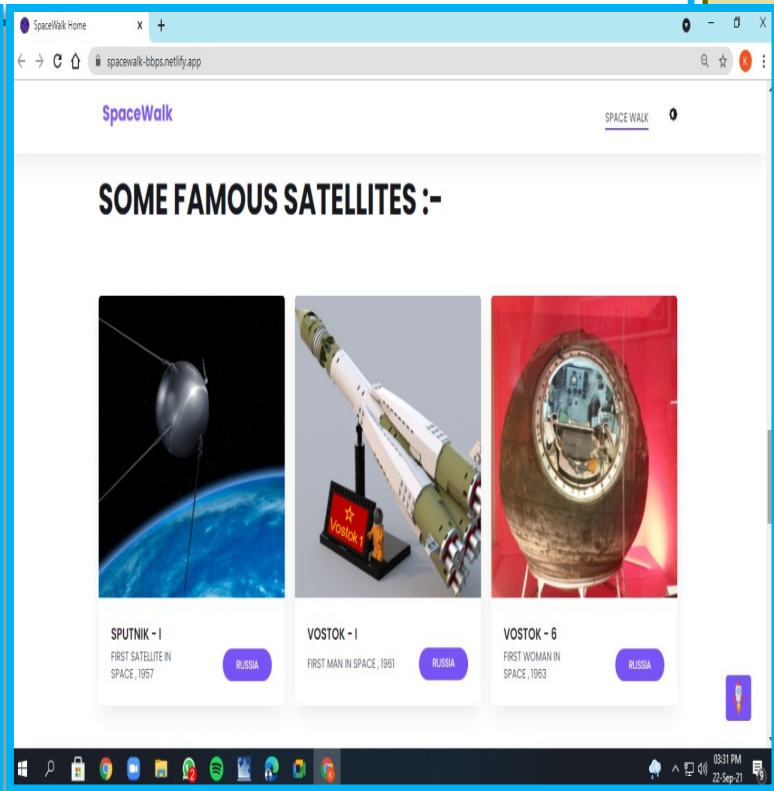
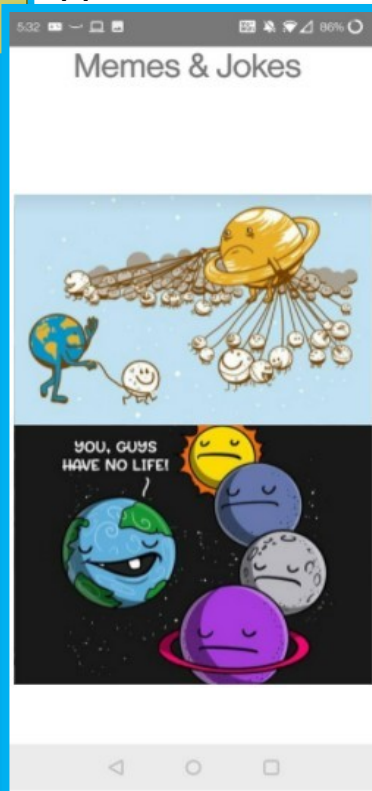
ATL was established in BBPS RH in the year 2018 and since then the students have been initiated into ATL by hand holding them through workshops on Arduino Programming, Tinkercad, Gaming, 3D printing etc. ATL at BBPSRH has been a testament of various success stories like winning the CBSE National Level Science exhibition, Participation in Robocup Internationals at Australia, to just name a few. Standing true to its vision, it has indeed become a breeding ground for innovative ideas from young minds. The students now have the power to envisage making a physical solution to their everyday problems and they are also getting acquainted to how to approach the task at hand by breaking it down to bits and targeting one problem at a time.

**Ms. Varsha Krishnan**  
**TGT Physics**

# STEAM

## ATL SPACE CHALLENGE

In the ATL Space Challenge 2021, the young innovators of BBPS RH engaged in creating new, efficient and innovative solutions for specific, real-world challenges in the Space sector. They used platforms like- Thunkable X, Canva, Tinker Cad, Wix web ADI, Google Sites etc to develop blanket apps containing information related to space. The students also designed 3D models of vehicles and equipments that can be used to reach space on Blender app.



## Student's Speak

Various competitions, webinars and workshops organized by the ATL Club brought us many creative opportunities. I was fortunate enough to submit innovative ideas for ATL MARATHON and ATL Space Challenge. The ATL Club has made me more creative and inculcated skills such as design mindset, computational thinking and adaptive learning. It has given me a chance to understand the concepts of STEM (Science, Technology, Engineering and Math) in a better way.

**Samyak Sharma**  
**VIII B**



# STEAM

## ATL TINKERPRENEUR BOOTCAMP

In the summer of 2021, AIM initiated **ATL Tinkerpreneur** - a Bootcamp to enable students to create their own digital ventures by building a strong foundational understanding of Business Models, Marketing and Finance.

ATL Tinkerpreneur  
Most Consistent Students



Congratulations to the student innovators and entrepreneurs!

We are proud of you and we hope you continue the excellent work and keep innovating!

Selection Process: Mentors who have evaluated every assignment submitted by their students

S.No	ATP Code	ATL Code	Name/Team Name	School Name	State / UT
1	210642	91023911	Jefin Joji	91023911JAWAHAR NAVODAYA VIDYALAYA Pathanamthitta	KERALA
2	245314	19845829	SANDIEP LAKSHMAN B A	19845829SPIC NAGAR HIGHER SECONDARY SCHOOL TUTICORIN	TAMIL NADU
3	325160	10163626	Aditya	10163626HARVEST INTERNATIONAL SCHOOL	KARNATAKA
4	619685	4f8112431	PRITISH KHATRI	4f8112431Delhi Public School Greater Faridabad	HARYANA
5	1032172	29841037	Pradnya	29841037S.P.M English School Secondary	MAHARASHTRA
6	1136333	31487561	Parinita Sharma	31487561DAV CENTENARY PUBLIC SCHOOL	DELHI
7	1484360	27503693	Innovation Geeks	27503693BHAVANS VIDYA MANDIR EROOR	KERALA
8	1849216	8327292	Techno Masters	8327292Government Boys Higher Secondary School Manjeri	KERALA
9	1997599	137812835	J Sahasritha	137812835M L KHANNA DAV PUBLIC SCHOOL SOUTH WEST DELHI	DELHI
10	2019645	23621847	Myra Arora	23621847BAL BHARATI PUBLIC SCHOOL ROHINI	DELHI
24	11264464	23621847	Jagrit	23621847BAL BHARATI PUBLIC SCHOOL ROHINI	DELHI

Myra Arora and Jagrit Sachdev of Class VIII had featured in the list of most consistent students in ATL Tinkerpreneur Bootcamp. They were selected on the basis of their consistency in submission of assignments and regular evaluation by their mentor.

Jagrit Sachdev also got a chance to feature in a special chat session streamed on AIM's official YouTube channel.



Jagrit Sachdev

## Student's Speak



To bring almost any idea to life, the right technological & execution (business) skills are required and ATL Tinkerpreneur offered just that. This year's ATL Tinkerpreneur Bootcamp armed us with tools like Zapper, Canva, Collab-cad, QR Monkey, Scratch & more. From designing products to continuous product iterations, pitching to financing to advertising, the training covered the entire spectrum and my experience in the camp was absolutely amazing.

**MYRA ARORA**  
**VIII B**

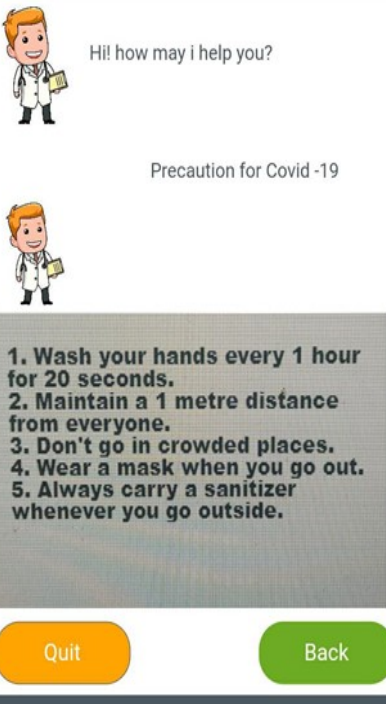
# STEAM

## AWS YOUNG BUILDERS CHALLENGE

AWS Young Builders Challenge was launched in collaboration with the Ministry of Education – Innovation Cell (Govt. of India). Designed in a three-phase structure, AWS Young Builders Challenge allowed the students a chance to learn the concepts of AI and cloud computing; build projects using interactive tools; and showcase those projects in a National-level virtual ceremony.

Five projects were submitted by students of our school in this event. Students made applications such as SNEHA (Sustainable natural eco-friendly healthy aahar), DRIVER ALERT SYSTEM, CORONA CHAT BOT, ZOOIN and SWA SEVA using block coding on the website “code.org”.

### Corona CHAT BOT



Hi! how may i help you?

Precaution for Covid -19

1. Wash your hands every 1 hour for 20 seconds.
2. Maintain a 1 metre distance from everyone.
3. Don't go in crowded places.
4. Wear a mask when you go out.
5. Always carry a sanitizer whenever you go outside.

Quit Back

### SWA SEVA

अपनी शिकायत को प्रस्तुत करने के लिए बहुत बहुत धन्यवाद। जल्द ही इस पर काम किया जाएगा।



कृपया अपनी शिकायत पर अपडेट प्राप्त करने के लिए अपना टिकट नंबर नोट करें।

टिकट नंबर: af1367g

फीडबैक दे

होम

### SNEHA APP

WHAT IS NAME OF YOUR CROP?

MILLETS

MILLETS

RICE

WHEAT

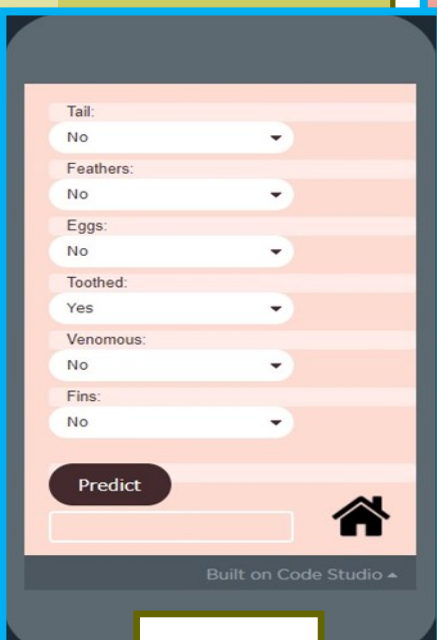
CORN

BARLEY

PULSES

BACK

Built on Code Studio



Tail: No

Feathers: No

Eggs: No

Toothed: Yes

Venomous: No

Fins: No

Predict

Built on Code Studio

### ZOOIN

### Driver Alert System



This app simulates a Car Alert System safety feature. It analyzes the road conditions and gives a rating on how safe it is to be driving right now.

Get Started

Note: Normally all of this data would be collected by sensors. But, for this app you will need to enter all the data manually.

Run

### DRIVER ALERT APP

```
View only
1 onEvent("homeNextBtn", "click", function() {
2   setScreen("carsScreen");
3 });
4 onEvent("carsNextBtn", "click", function() {
5   var carNumber = getProperty("carsInput", "text");
6   setScreen("temperatureScreen");
7 });
8 onEvent("temperatureNextBtn", "click", function() {
9   var temp = getProperty("temperatureInput", "text");
10  setScreen("timeOfDayScreen");
11 });
12 onEvent("timeOfDayNextBtn", "click", function() {
13   var time = getProperty("timeOfDayDropdown", "value");
14   setScreen("weatherScreen");
15 });
16 onEvent("weatherNextBtn", "click", function() {
17   var weather = getProperty("weatherDropdown", "value");
18 });
```



# STEAM

## ATL KIDEX CHALLENGE

National All Rounder Championship (NARC) was a unique event which helped schools achieve multiple goals of National Education Policy 2020. It was conducted by Kidex in collaboration with Atal Innovation Mission and Niti Aayog. BBPSRH was ranked 9 and 15 based on the Holistic Development Index in NARC Winter Edition 2020 and NARC Summer Edition 2021 respectively. The students submitted excellent videos on the allotted topics.



### Students' Speak

**“A good idea becomes a great idea when you let it out...”**

We all have innovative ideas in ourselves but what's required is a platform and motivation to take them out. For me, that motivation and platform was the ATL Club of BBPS Rohini. The sessions of ATL club opened me to various new things like Robotics and Electronics and helped me in unleashing my creative mind. It was an amazing experience joining these ATL sessions and I look ahead for more of them.

**Soumil Aggarwal**  
**IX D**

Being a part of the Kid-Ex team was really exciting. Each activity was very challenging and a lot of fun. KIDEX NARC Summer edition helped me in improving my physical skills, communication skills and imagination skills. It was a very good opportunity for me to explore my talent. The cherry on the cake was my ₹5,500/- cash prize in various categories of the KIDEX NARC Summer edition.

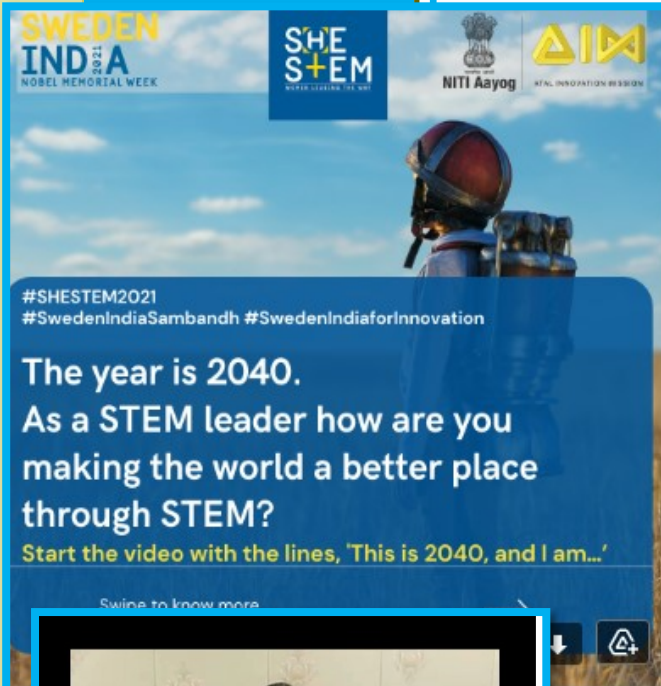
**Shubham Sehgal**  
**VI B**



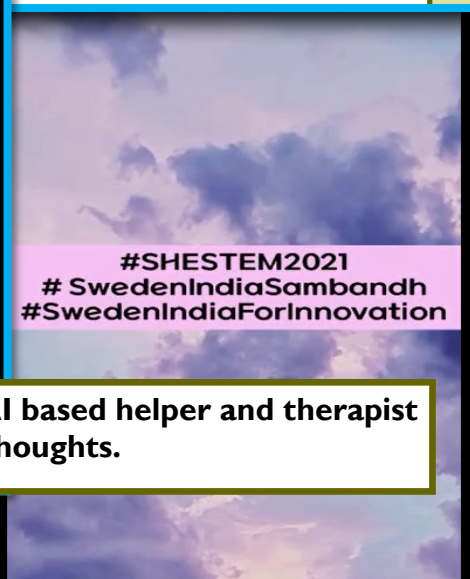
# STEAM

## SHE STEM 2021

AIM along with the Embassy of Sweden organised SHE STEM to encourage young girls towards fields of STEM. As a part of this event, a special challenge was launched for all students, **girls and boys** from November 1st to 14th. The challenge aimed to encourage students to think of the future and imagine that by 2040, as leaders in STEM, how would they make the world a better place. Four students, Adeetya Kakkarr IX C, Samridhi Gupta IX D, Tisshya Sharma XI D, Hitee Bhardwaj XI A took part in this challenge by submitting their videos.



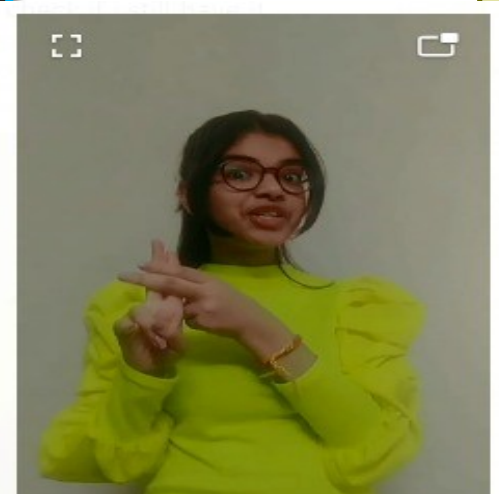
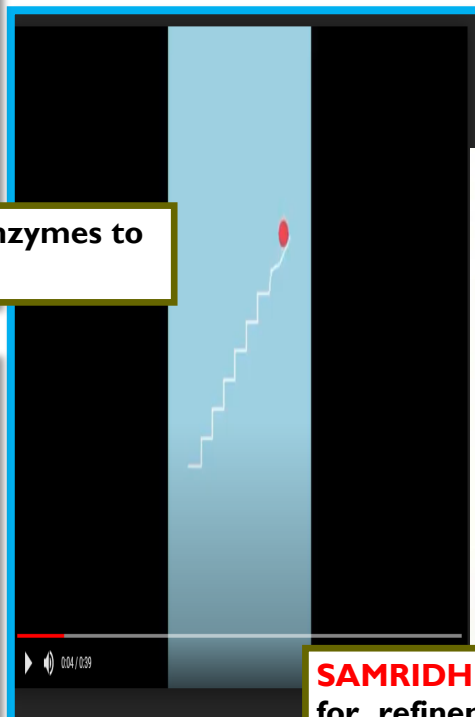
**ADEETYA KAKKARR:** AI based helper and therapist to help people with sad thoughts.



**TISSHYA SHARMA :** Using nano-enzymes to produce green energy.



**HITEE BHARDWAJ:** Marine biologists reviving extinct tree species using already existing underground fungal network.



**SAMRIDHI GUPTA:** Innovating mechanisms for refinement of sea water to help solve water scarcity.