



News From

STEMVision Inc.

Empowering the Next Generation in STEM



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Link to Website:

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Our Journey throughout 2020

From a deadly pandemic to a global movement for racial justice, the year 2020 has experienced a tectonic shift of events. This year will go down in history as one of the most critical. For us, the most challenging part about postponing or giving up on plans was the unknown future that looked even murkier than expected.

But now, after nine months, there is a new beginning - the COVID-19 vaccines. COVID-19 vaccines have been rolled out across the US. We all hope to get back some of our normalcy in our lives. But our work is far from over. As a result of COVID-19, more than 290 million students globally have been affected by school closures. In many countries, schools have closed indefinitely, and in many places, schools rapidly transformed into eLearning activities without the infrastructure or technology available to support the transition. The forced online transition impacted student engagement and inequalities in quality of education across the globe.

We have been very fortunate to have outstanding teachers in our school and for a smooth transition. With wrap-around guidance from teachers, administrators, and parents, our transition has been agile and had minimum impact on our learning.

In March, Aarush and I created STEMVision Inc. with a philosophy to empower our next generation with the skills to succeed and adapt to this increasingly complex, changing technological world. STEM education is critical for our future workforce and is the path to steer the innovation to sustain our future. Science, technology, and math literacy are built on a strong base, and the passion needs to be cultivated early in our education. Our classes in science, technology, and mathematics grew in diversity and population. With the pandemic in full swing, we made a critical impact in teaching students in core subjects from grades KG to 12.

Our team now has a robust global identity with representation in France and India. Camille and Yacob enriched our team with their insight by teaching French to our US students. Jon is a great asset to our US team and he guided the Java lessons that were extremely popular. Aruna and Anika connected with young kids, engaging them in science and math. Aarush and I enjoyed teaching Python, biology, chemistry, and math, all while building community partnerships. Nandini and Isha from Minnesota did an outstanding job in delivering chemistry and biology sessions. We are also excited to have Megha, who recently joined us, and she is the newest member of our STEMVision team.

With more passion, more engagement, commitment to solving problems, and finding solutions, we aim to foster learning success. We are thankful to our community partners for their steadfast support and guidance.

Our Impact to Community Success

Total Number of Courses: 25

Total Number of Participants: 2,070

Season's Greetings

Cheers to the New Year! Wishing you a happy holiday season.

~from our team at STEMVision Inc.

Our Team (as of December 2020)

Anika Prasad, Megha Manoj, Jon Santmyer, Aruna Harpalani, Nandini Iyer, Isha Kapoor, Emily Baker, Camille Frank, Yacob Zitouni, Ayush Gupta, Devanshu Gupta, Swarnima Prasad, Abhishil Prasad, Arko Ghosh, & Aarush Prasad

An Article for Everyone

Exciting breakthrough with mRNA Vaccine

The very first vaccines for COVID-19 that are made by Pfizer/BioNTech, which just received emergency use authorization from the FDA, are mRNA vaccines. How do they differ from traditional vaccines, and what makes them so exciting?

Since the days of Jenner, most traditional vaccines use weakened virus, while others use just a critical piece of the virus's protein coat. In the case of COVID-19, a piece called the spike protein is the critical piece.

About 30 years ago, scientists began exploring vaccines that could be made by simply knowing the exact structure of the mRNA that made the critical piece of a virus's protein coat.

Like every breakthrough, the science behind the mRNA vaccine builds on many previous breakthroughs, including understanding the structure of DNA and mRNA, and how they work to produce a protein; inventing technology to determine the genetic sequence of a virus; inventing technology to build an mRNA that would make a particular protein; overcoming all of the obstacles that could keep mRNA injected into the muscle of a person's arm from finding its way to immune system cells deep within the body, and coaxing those cells to make the critical protein; and information technology to transmit knowledge around the world at light-speed.

Sources - Anthony Komaroff, M. (2020, December 12). Why are mRNA vaccines so exciting? Retrieved December 17, 2020, from <https://www.health.harvard.edu/blog/why-are-mrna-vaccines-so-exciting-2020121021599>

Snap! Crackle! Brainteaser!

What is the value of n if $2^{(n+4)} = 8^{2n/3}$?

Answer: 4

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