

Tech for Kids Breakthrough 2022



Phnom Penh, Cambodia 04 October 2022



Acknowledgement

On behalf of Tech for Kids Academy, we would like to thank the organizing team, mentors, trainers, volunteers, and partners for making the first national celebration event successful.

We would also like to especially thank the Ministry of Education Youth and Sports (MoEYS) for their support toward Tech for Kids Breakthrough so far, and be bridge to the students in public school and social media to make the program more impactful. Besides, we would like to thank our venue sponsor, The Factory Phnom Penh that provides a suitable venue for our national celebration event, and our media partner, The Multimedia.

Last but not least, we would like to congrats and give a big appreciation to participants, especially parents that make this impact even greater.



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Executive Summary

Tech for Kids Breakthrough is a 6 weeks program that is prepared by Tech for Kids Academy with full support from the Ministry of Education, Youth and Sports (MoEYS) for students who are the age of 13 - 18 years old. This program is created for the purpose of encouraging students' participation in science and design by creating a 90 seconds video of explanations about interesting scientific ideas that are complicated in a very simple way and prepared for global submission. The goal is not to establish scientists or students who will come up with new theories, but rather for them to come up with a creative way to understand concepts/theories and spark their interest in science. At Tech for Kids Breakthrough, students come here to learn, think outside the box, and implement. The topics that are chosen from the global stage are Physics, Mathematics, and Life Science.

There were 123 applications and 30 students were selected through the screening of applications. After the interview stage, there were 24 students who successfully passed to enter the program. With selected participants, we divide them into groups with the same topic that is chosen by the students. After grouping, in total there were 8 groups of subjects based on our mentor-to-team ratio of 1:3.

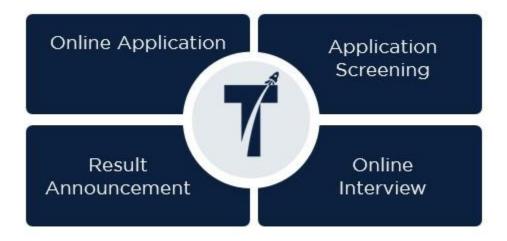
After 6 weeks of mentoring with deep and insightful discussions with mentors, there were 19 videos that were successfully submitted to the global stage. After the global submission, Tech for Kids Breakthrough also initiated the half-day national event where 3 of subject-based video winners and 1 popular vote video winner will be announced.

Tech for Kids Breakthrough got venue support from The Factory of Phnom Penh.

Link to Video of Cambodia Students: https://bit.ly/Breakthrough-Video



Applicant selection process



Timeline





List of the Selected Candidates

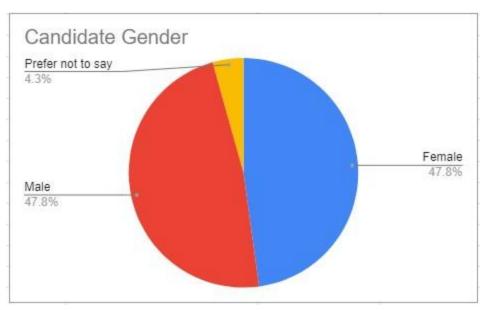
| Total Students: | 24 students (Female: 11) |
|-----------------|------------------------------------|
| From School: | 17 schools (7 from private school) |
| From province: | 4 students |

| No. | Full Name | Gender | Grade | School | Peimary Area | Торіс |
|-----|---------------------|--------|-------|--|-----------------|--|
| 1 | Panhasith So | Male | 10 | Smart Kid | Physic | Newton's 3 Law of Motion |
| 2 | Rith Nyvisalsnuk | Male | 11 | Russey Keo High School-Phnom Penh | Physic | Virtual Particles in Quantum Field Theory |
| 3 | Samuel Pheak | Male | 8 | New Life School - Phnom Penh | Physic | Galaxy and Star |
| 4 | Rady Pheanoukma | Male | 8 | Preah Sisowath High School New Generation School (NGS) | Physic | Aerodynamics |
| 5 | Ourn Sokhak Mallika | Female | 8 | Sovannaphumi School-TuolKork | Physic | Visual Doppler |
| 6 | Seng Chanlyna | Female | 12 | Hunsen Angtasoam High School | Physic | Gravity |
| 7 | Out Seyha | Male | 9 | Beltei | Physic | Shadow |
| 8 | Isomura Takumi | Male | 10 | Preah Sisowath High School - Phnom Penh | Mathematic | Logic |
| 9 | Chea Kuyseng | Male | 9 | New generation school (Preah Sisowath) | Mathematic | Golden Ratio |
| 10 | Kimsan Ahn | Male | 7 | ELT - Phnom Penh | Mathematic | Pythagorean Theorem |
| 11 | Sun Sodavina | Female | 10 | Preah Sisowath High School (NGS) - Phnom Penh | Life Science | Acid Rain Effect pH of Soil |
| 12 | Kulapati Ly | Male | 11 | Preah Sisowath High School NGS- Phnom Penh | Life Science | Microfluidic Devices |
| 13 | Cheat Liza | Female | 11 | ICS International school | Life Science | How does motivation related to homeostasis |

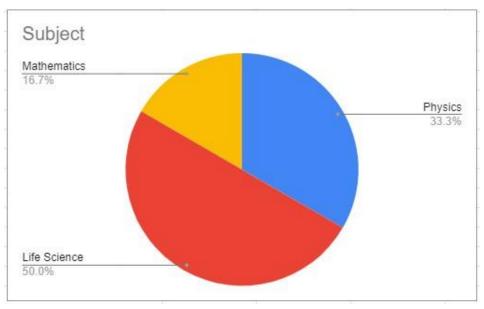


| 14 | Ty Mean Kuong | Male | 9 | Chak Angre High School | Life Science | Melenin, the Brown Pigment on Skin |
|----|-----------------------|--------|----|--|-----------------|---|
| 15 | Kao Menghorng | Female | 11 | Hun Sen Peam Chikang Highschool | Life Science | Fertilization and Genetic |
| 16 | Vuthy Kolabsunjhestha | Male | 11 | Toul Tom Poung | Life Science | Climate Change |
| 17 | Tann Sunlay | Male | 10 | Tisa school | Life Science | Ancient Viruses |
| 18 | ង៉ែត សុគន្ធជារាន្នី | Female | 12 | Phsar Deum Thkov high school - Phnom Penh | Life Science | Somatic Cell Nuclear Transfer (SCNT) – Reproductive Cloning |
| 19 | ស្រេង កិញ្ចនា | Female | 12 | Phsar Deum Thkov high school - Phnom Penh | Life Science | Covid Rapid Test |
| 20 | Polita Choup | Female | 12 | CIA First- Phnom Peng | Life Science | Human Body, Genes |
| 21 | Soreaksa Bung | Female | 8 | CIA First - Phnom Penh | Physic | Electromagnetic Stectrum |
| 22 | Hieng Dara | Male | 12 | Kompong Highschool | Mathematic s | Polinomial Equation |
| 23 | Ly Kimsrorng | Female | 11 | Keat Chhon High school-Kratie | Life Science | |
| 24 | Khut Sokuntheary | Female | 12 | Sovannaphumi school | Life Science | Climate Change |
| | | - | - | | | |





1.1 Canididate Gender



1.2 Primary Area that students choose



Mentors List

| No. | Full name | Gender | Mentoring On | From |
|-----|-----------------------|--------|---------------|---|
| 1 | Phannaro Nhem | Male | Life Science | Sungkyunkwan University |
| 2 | Chamroeun sopanha | Female | Life Science | Limkokwing university |
| 3 | KANHCHANA LY | Female | Life Science | Southern University of Science and Technology |
| 4 | Soeurng Sokuntheaream | Male | Video Editing | Cambodia Academy of Digital Technology |
| 5 | Phan Sreynet | Female | Video Editing | PSE Institute |
| 6 | Panha Eay | Male | Video Editing | Thailand |
| 7 | Mang Rathanakmealea | Female | Math | Liger Leadership Academy |
| 8 | Menghang Hean | Male | Math | Paragon International University |
| 9 | Sodanith Phuong | Male | Physic | Southern University of Science and Technology (SUSTech) |
| 10 | Hun Ketya | Male | Physic | Institute of Technology of Cambodia |
| 11 | Oudomdavid VUTHY | Male | Physic | |



National Event

Beside preparing students for global submission, Tech for Kids Breakthrough 2022 also hosts a National Event held on the 18th of September 2022 at The Factory Phnom Penh from 13:00 till 17:00. There were around 50 participants joining the event coming from different provinces.

The purpose of hosting this national event is to encourage students that have submitted the video to the global stage a chance to win a prize. It's also a chance to spread awareness of our program to the public and inspire young students to involve more in science.

The videos submitted to the global stage by Tech for Kids Breakthrough 2022 's participants were carefully scored by 3 judges living abroad. During the National Event, we also announced the winner, each receiving 300,000 riels.

| Categories | Full Name | Gender | City / Province |
|---------------------|---------------------|--------|-----------------|
| Physics Winner | Rith Nyvisalsnuk | Male | Phnom Penh |
| Life Science Winner | ង៉ែត សុគន្ធជារាន្នី | Female | Phnom Penh |
| Mathematics Winner | Kimsan Ahn | Male | Phnom Penh |
| Popular Vote Winner | Rady Pheanoukma | Male | Phnom Penh |





1.1 Mentoring Session



1.2 Top Score Award





1.3 Popular Vote Award



1.4 Panel Discussion



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- 6. Ms. Lim Chhenghuy
- 7. Ms. Luy Sereypahna
- 8. Ms. Ros Sereyvann
- 9. Mr. Peang Bunyith
- 10. Mrs. Chheoun Mary
- 11. Ms. Chanchem Bormey
- 12. Ms. Meng Ornsopheara