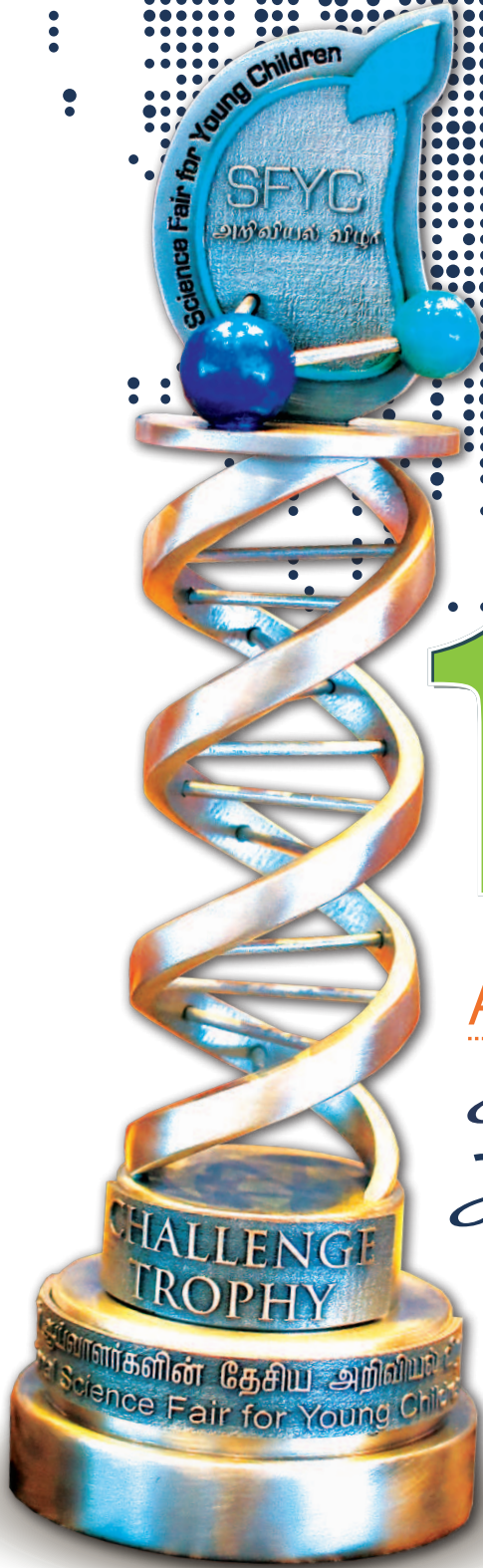




ANNIVERSARY **கொட்க**

**முப்பாடார்கர்
அர்வபல் வுட**

Science **அடுக்கக**
Fair **for** Young Children
Report **2016**



1st Year
ANNIVERSARY

ANNIVERSARY

சுய்வானீகர்
சர்வப் படி

Science அறிக்கை
Fair for Young Children
Report 2016



Science Fair for Young Children 2016 Report

Compiled and Produced by:
ASTI R&D Department

Design, Layout & Editing:
Ragavan Pandian (Freelance Designer)

Printed by:-
Firdaus Press Sdn. Bhd.
No 28, Jalan PBS 14/4, Taman Perindustrian Bukit Serdang,
43300 Seri Kembangan, Selangor.
Tel/Fax : 03 8940 5595



Acknowledgments Our Heartfelt thanks!

YAB Dato' Sri Haji Mohammad Najib bin Tun Haji Abdul Razak
Prime Minister of Malaysia

Socio-Economic Development of Indian Community (SEDIC)
MyNadi Foundation
The Edge Education Foundation
National Land Finance Corporate Society (NLFCS)
Online Printing Network Sdn Bhd

Tamil School Head Masters Council
Pertubuhan Kebajikan dan Amal India Baru Malaysia (Perinnbam)
Persatuan Pembangunan Intelek dan Aspirasi Rakyat Malaysia (Peminat)
Society of Rising Individuals (SRI)
Persatuan Bahasa Tamil, Universiti Pendidikan Sultan Idris
Johor Intellectual Indian Graduate Association

And

hundreds of other individuals, judges, volunteers, parents, headmasters, teachers and organizations who contributed their precious time, money and knowledge in making SFYC 2016 a great success.



SFYC 2016 Working Group Committee

Founder	: Dr. Mohamed Yunus Mohamed Yasin
Advisory Board Members:	Dr. Subramaniam Gurusamy
	: Mr. Nadaraja Kalimuthu
	: Major Dr. Vikneswaran Munikanan
	: Dato' CM Vignaesvaran Jayandran
	: Mr. Saravanan Vimalanathan
	: Mr. Suresh Ramasamy
Project Director I	: Mr. Jayashri Selvendran J Thanapal
Project Director II	: Mr. Sathish Kumar Letchumanan
Project Manager	: Ms. Umahsankariah Muthunaikar

Zone coordinators

Zone 1 - Kedah & Perlis
Mr. Ramakrishnan Raghavan

Zone 2 - Pulau Pinang
Mr. Sri Jeyanthirar Subramaniam (SRI Foundation)

Zone 3 - Perak
Ms. Ritha Krishnan (PBT UPSI)

Zone 4 & 5 - Selangor & Kuala Lumpur
Mr. Visraaje Subramaniam (PEMINAT)


Zone 6 - Negeri Sembilan
Mr. Krishnamoorthy (MGB Negeri Sembilan)

Zone 7 - Melaka
Mr. Mathiyalagan Elloo

Zone 8 - Johor
Mr. Sukan Yanasagaran (JIGRADE)

Zone 9 - Pahang & Kelantan
Mr. Muthu Paramasivam (PERINNBAM)

Table of Contents	Page
Executive Summary	1
1.0 Introduction	3
1.1 Summary of SFYC 2016	3
1.2 Background of SFYC 2016	4
1.3 Objectives of SFYC 2016	5
1.4 Methodology	7
1.5 Zone Categorisation	9
1.6 Organisations in Consortium	10
1.7 Achievements of SFYC	13
2.0 School Level Science Fair (SLSF)	17
2.1 Introduction	17
2.2 Seed Funding	18
2.3 Implementation of School Level Science Fair	18
3.0 Zone Level Science Fair (ZLSF)	20
3.1 Introduction	20
4.0 Training and Development	24
4.1 Training Preparation and Progress	24
4.1.1 Science Fair Folder	24
4.1.2 VCD Production	26
4.1.3 Training of Trainers	27
4.2 School Level and Zone Level Teachers Training	28
5.0 National Science Fair for Young Children 2016	30
5.1 Overview	30
6.0 Research and Development Department	33
6.1 Experiments	33
6.2 Surveys	33
7.0 Public Relations	35
8.0 Funding	38
9.0 Judging	39
9.1 Zone Level Chief Judges Training	39
9.2 Zone Level Judges Training	40
9.3 National Science Fair for Young Children 2016 Judging	41
9.3.1 Student's Research Paper Judging	41
9.3.2 Event Day Judging	43



10.0 Account Statement of SFYC 2016	47
11.0 Recommendations	50
11.1 Working Group Committee (WGC)	50
11.2 School Level Science Fair (SLSF)	50
11.3 Zone Level Science Fair (ZLSF)	50
11.4 National Level Science Fair (NSFYC)	50
11.5 Training	50
11.6 Event Committee	50
12.0 Conclusion	51



Executive Summary

Science Fair for Young Children, SFYC, is a programme held annually among Tamil schools nationwide in Malaysia to encourage science learning among primary school childrens. Science Fair for Young Children, SFYC started as a pilot project back in 2007 focussing for Tamil schools in Selangor and Kuala Lumpur, Wilayah Persekutuan. The following year in 2008, SFYC became an event held nationwide with more and more schools participating every year.

SFYC has been a platform and an opportunity for young children to showcase their scientific knowledge and skills. This programme has brought together schools from the entire country for the sole purpose of participating and excelling. SFYC's success has enabled the organisers to conduct the fair at 3 levels since 2010; which are the school, zone and national level. The organisers and the zone coordinators ensured that the training for school level and zone level science fair were conducted smoothly. In 2016, we combined both school level and zone level teachers trainings.

In 2016, a total of 308 schools participated in the School Level Science Fairs held nationwide as at October 2016. Meanwhile, 258 schools participated in the Zone Level Science Fairs held in 9 zones. The National Science Fair for Young Children was held on 16th and 17th July 2016 at the German Malaysian Institute. Sixty teams were selected from the 9 zones to take part in the national event.

In addition to the overall category, prizes were also given for Innovation Category and Research Paper Category.

Some of NSFYC 2016 participating teams took part in other competitions after the national event. Nine teams from SJK(T) Jalan Yahya Awal, two teams from SJK(T) Ramakrishna, four teams from SJK(T) Raub, one team from SJK(T) Bluevalley , one team from SJK(T) Sungai Ara, two teams from SJK(T) Mount Austin and one team from SJK(T) Pasir Gudang took part in Kuala Lumpur Engineering Science Fair held from 4th November till 6th Nov 2016. SJK(T) Ramakrishna won a gold and bronze medals, SJK(T) Yahya Awal won a silver and a bronze medals and SJK(T) Pasir Gudang won a Bronze medal in the student's category for their innovation. About 120 teams participated in this fair. Three teams from SJK(T) Jalan Yahya Awal, one from SJK(T) Taman Tun Aminah, one from SJK(T) Kulai Besar and one from SJK(T) Kangkar Pulai participated in the International Invention, Innovation and Design Competition 2016 held at Aman Sari Resort, Bandar Seri Alam, Johor. SJK(T) Kangkar Pulai won a gold medal and SJK(T) Jalan Yahya Awal won two silver medals and one bronze medal in this competition. Teams from previous NSFYC have won bronze medals in IYIA Surabaya Indonesia and a gold medal in iCAN , Toronto Canada.

Based on surveys conducted among our main stakeholders especially teachers and students, it shows that SFYC has been very successful in motivating the interest in science in Tamil schools. A detailed R&D report has been launched regarding this study and is available for download from ASTI & SFYC websites. We hope more individuals & organisations would come forward to fund this programme so that the journey continues for both the young children and the science fair team.

By conducting the science fair for the last 10 years, ASTI has learnt a many things based on anecdotal evidence. For example, when teachers change, the schools' performance also change in the science fair. The performances of a new school where the teacher is transferred to improve while there is a drop in performance in the teacher's former school. More of this is explained in the SFYC R&D Report.





Introduction

1.1 Summary

The word is from Latin “scire” (to know). According to the Oxford Dictionary, science means “the intellectual and practical activity encompassing the systematic study of the structure and behaviour of the physical and natural world through observation and experiment”. Meanwhile, experiment means “a scientific procedure undertaken to make a discovery to test a hypothesis or to demonstrate a known fact.”

Frederic Joliot-Curie, a French physicist and physical chemist who collaborated with his wife in Nobel prize-winning research on nuclear transmutation of atoms, said that an experiment should be set up to open as many windows as possible on the unforeseen. Science walks forward on two feet, namely theory and experiment... but continuous progress is only made by the use of both, as said by Robert Andrews Millikan, an American physicist whose famous oil-drop experiment determined the charge on the electron, which also showed the electron was a fundamental, discrete particle.

The best way to learn science is by the ‘hands-on’ manner of conducting experiments and drawing an inference from it rather than just reading, understanding and remembering its contents. Science students who are young should be encouraged to learn science by doing projects that will bring to ‘life’ underlying scientific concepts. With this, they can understand the concept clearly and adopt the

concept in their daily life. This method will also empower the young mind to take the learning process into their own hands, thus inculcate independent thinking.

Because of the importance of this, a group of community based non-profit organisation founded Science Fair for Young Children, or SFYC in 2007. Since then, SFYC has been organised jointly with Tamil schools annually with more and more students participating every year at the school, zone and national levels.

SFYC organising team does not just organise the Fair at Zone and National Levels, the team also encourages the schools to hold School Level Science Fairs (SLSF). The organisers think that School Level Science Fairs and Zone Level Science Fairs (ZLSF) have a better impact and benefit to the students who are interested in science. Each school was given prizes to organise their own SLSF and training was provided on how to organise these fairs.

This year, 308 of schools have organised School Level Science Fair at their respective schools as at October 2016. At the Zone Level Science Fair, 258 schools have participated nationwide. Meanwhile, the National Level event was held on 16th and 17th July 2016 at German Malaysian Institute, Bangi with 60 schools taking part in it. The total expenses for organising the School, Zone and National Level Science Fair amounted to RM 638,954.80.



1.2 Background

Science is the systematic study of nature and there is much knowledge to be gained and while scientific facts are important, if the methods employed to discover or learn them are incomplete, it could hamper scientific progress and understanding.

We use our five senses to see, taste, smell, feel and hear, for exploring the world around us. As Edwin Hubble, the American astronomer who first demonstrated the existence of galaxies outside the Milky Way once said, “equipped” with his five senses, man explores the universe around him and calls the adventure Science. Our senses are the gateway to the world of science.

Students learn science with great interest when it is more ‘hands-on’ or experimental, whereby they are led on a path of discovering scientific truths as they seek to satisfy their curiosity.

Science Fairs are ideal as they give students an opportunity to learn a scientific concept in greater depth, while simultaneously allowing them to:

- use scientific methods to develop an understanding of scientific skills;
- take an open and creative approach to problem solving;
- to create/increase awareness, interest, motivation in the study of Science in school;
- sharpen their writing skills and their ability to work in a team, to plan and execute tasks;
- develop their soft skills such as public speaking when they present their projects to their schoolmates and to judges;
- improve their own learning process in critical thinking based on experience and project;
- compete and be recognised for academic achievement -- the judging process also provides students with the invaluable experience of developing poise and thinking on their feet.

In 2003, a team was set up to organise the Young Scientific Explorers, and a group of volunteers visited schools to demonstrate simple yet exciting projects to students followed by a trip to the National Science Centre. Upon its success, and recognising the benefits of a science fair, we initiated the SFYC in 2006.

A team of scientists and educationists was formed and tasked with developing the concept, materials and the supporting structure to implement pilot projects. The following year in 2007, the first SFYC was held at Dewan Tunku Canselor, Universiti Malaya and it was a big success with 49 teams from Selangor and Wilayah Persekutuan taking part. The enthusiasm shown by the participating students was simply electrifying!

The SFYC was then expanded nationwide in 2008 with 197 teams from eight states participating. The final event was held at the National Science Centre, and was graced by the Chief Secretary of the Education Ministry, Tan Sri Dr. Zulkurnain bin Haji Awang.



In 2009, a total 207 teams participated in the State Level Science Fairs and the best 60 teams were selected for the national event which was staged at Kelab Kilat (TNB Hall), in Kuala Lumpur.

The following year, 285 teams successfully took part in the state level events in 9 states nationwide and the national event was held at the AIMST University with the participation of the best 60 teams. The state level science fair in 2011 and 2012 was staged in 9 states nationwide with 274 and 269 schools taking part respectively. In 2013, 282 schools participated in the state level science fair in 9 states. The national event of 2011, 2012 and 2013 was held at the German Malaysian Institute (GMI) with 60 top teams taking part.

In 2014, a total of 261 schools successfully participated in the state level science fair in 9 zones. The national event of 2014 was held at Dewan Raja Muda Musa, Shah Alam as a one day event. Meanwhile in 2015, 221 schools participated in the state level science fair held in 9 zones nationwide. And the national event for 2015 was held at Manipal International University, Nilai with 60 schools participating in a one day event.

In the year 2016, a total of 258 schools took part in state level science fair held in 9 zones. The National Level Science Fair was held on 16th and 17th July 2016 at German Malaysian Institute as a two day event where 60 top teams from the entire country were selected for the national event.

1.3 Objectives of SFYC 2016

SFYC 2016 had the following objectives:

1. To add new science projects to the sample projects already available.
2. To train science teachers from schools on 'hands-on' science, science project and encourage them to organise school level science fairs.
3. To encourage more schools to organise schools level Science Fairs.
4. To encourage students training for each zone.
5. To promote parents training to each zone to help the students and schools to organise the science fairs.
6. To empower co-ordinators to organise the zone level science fairs.
7. To organise a national level science fair for the best 60 science projects.
8. To encourage the students to participate in National and International Science Competition/ Exhibitions/Fairs.



1.4 Methodology

The non-profit organisations involved in the SFYC have been jointly organising the event successfully since 2007. We have also diligently recorded the challenges faced along the way, and have developed handbooks or guidebooks for all the stakeholders. This knowledge-base is contained in the SFYC Folder.

The folder is a key tool for the organisers, teachers, students, parents, facilitators and judges. It helps all parties to better understand the scope and nature of the project and the role of each stakeholder. There are 10 areas covered by the folder. Details of which is explained in chapter 4.

As the SFYC is a partnership project, we confer with all the various partners to enquire about their interest in joining the programme, and their ability to contribute towards SFYC's success. After the NGO partners have been brought on-board, the SFYC Advisory Council, which sets the policy and makes the key decisions with regards to SFYC, is formed. The Working Group Committee will implement programmes towards SFYC's achievement. The representatives of partner NGOs are members of the Working Group. (Refer Appendix 3 for the Organisational Chart.)

Next, the Project Director recruits co-ordinators and organisations to stage the state level science fairs. In 2016, we organised fairs in 9 states -- Kedah, Pulau Pinang, Perak, Selangor, Kuala Lumpur, Pahang, Negeri Sembilan, Melaka, and Johor. Following this, the co-ordinators were tasked with approaching the schools, recruiting facilitators, organising teacher trainings and sending facilitators to schools to guide the students and teachers. The staff at the SFYC headquarters assist the co-ordinators with secretariat functions.

The co-ordinators are given RM350 per school as seed money in organising the state level fairs for every school that confirms their participation.

All participating teams are judged by a team of judges with a strong science background. The judges must follow the judging manual to accurately evaluate a project's merit. The 60 best schools from these state level fairs will be selected and invited to participate at the National Science Fair for Young Children.

Milestones for SFYC 2016

Item	Time Frame
SFYC 2016 Workshop	December 2015
Identify Partner NGO and State Coordinators	December 2015 to January 2016
Form SFYC Working Group Committee	December 2015
Develop Detailed Implementation Plan for SFYC 2016	December 2015
Train the Coordinators on conducting School & Zone Level Science Fairs	December 2015
School and Zone Level Resources, Materials & Experiment Review & Finalization	December 2015 to January 2016
School & Zone Level Training & Workshop for Teachers	February 2016 to March 2016
Zone Level Science Fairs	April 2016 to June 2016
National Level Science Fair	June 2016 to June 2016
Postmortem of SFYC 2016	August 2016 to October 2016
SFYC 2016 Final Report Preparation	August 2016 to October 2016

Table 1.1: Milestones of SFYC 2016 (November 2015 - October 2016)



1.5 Zone Categorisation



Figure 1.1: Zone Categorisation of SFYC

Zone	States	Total Tamil Schools
Zone 1	Kedah & Perlis	59 Schools
Zone 2	Pulau Pinang	28 Schools
Zone 3	Perak	134 Schools
Zone 4	Selangor	97 Schools
Zone 5	Wilayah Persekutuan, Kuala Lumpur	15 Schools
Zone 6	Negeri Sembilan	61 Schools
Zone 7	Melaka	21 Schools
Zone 8	Johor	71 Schools
Zone 9	Pahang & Kelantan	38 Schools
TOTAL		524 Schools

Table 1.2: Number of Tamil Primary Schools in Malaysia

1.6 Organisations Involved

2016's Science Fair for Young Children is a group effort by:



Funding partners:



The organisation structure is as follows:

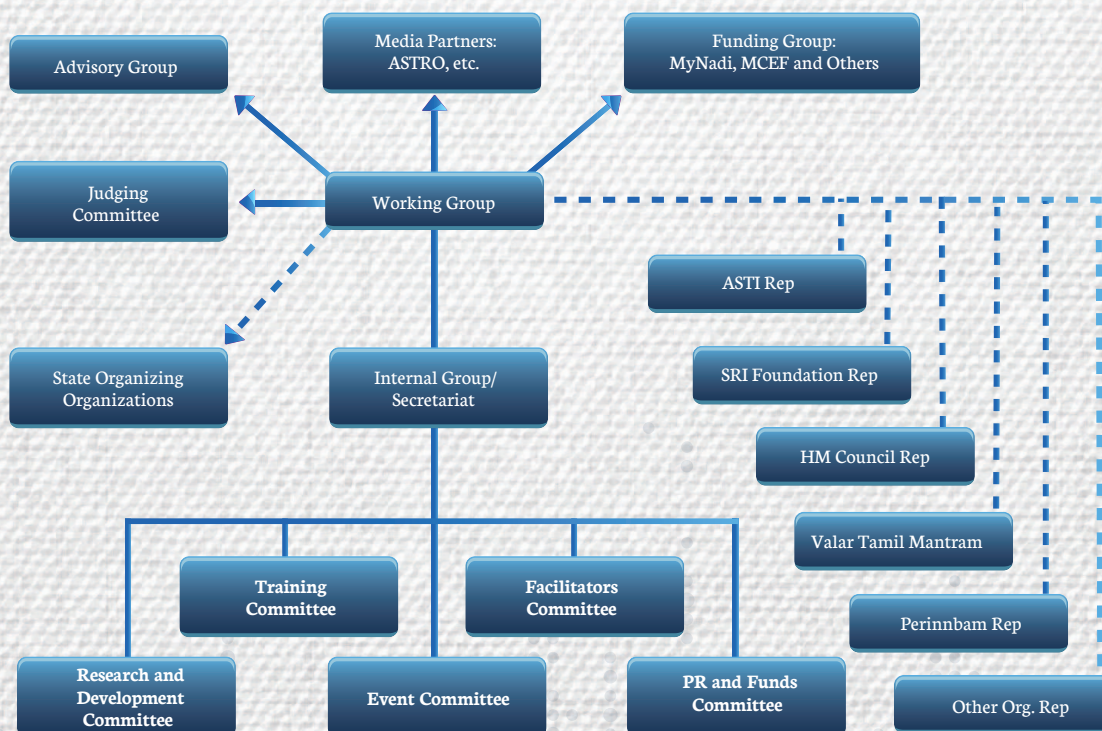


Figure 1.2: The Organisation Structure of the Science Fair for Young Children 2016

Groups	Members	Job Function
Advisory Council	Advisors: Dr.Mohd Yunus Mohd Yasin Dr.Subramaniam Gurusamy Mr.Nadarajah Kalimuthu Maj.Dr. Vikneswaran Muni- kanan Mr.Saravanan Vimalanathan Mr.Suresh	<ul style="list-style-type: none"> • Decision Making at policy level • Meets twice a Year • Takes over the SFYC after the Working Group Committee dissolves
Working Group Committee (WGC)	Partner organizations representatives, Project Advisor(s), and Project Director, who will be the chairman.	<ul style="list-style-type: none"> • Policy making for SFYC Event • Decision making of operational level • Financial approval • Delegate and monitor the project • Guide the Internal Group • Meet every fortnight
Internal Group	Project Director, and SFYC Project Officers	<ul style="list-style-type: none"> • Plan and implement SFYC 2016 • Prepare weekly progress reports by each department for the Working Group's consideration • Meet every week • Provide all administrative support for the SFYC. • Organize Working Group and Internal Group meetings, prepare minutes and reports • Co-ordinate with the Facilitators and Judging Groups, and provide assistance as needed • Provide information on the progress to the relevant groups • Report to the Project Director • Core coordinator in the implementation of the projects
Judges Committee	Volunteers selected to serve in the National SFYC	<ul style="list-style-type: none"> • Review the judging manual and upgrade the judging instruments • Work with state coordinators to identify suitable judges for the state level science fairs • Meet state level judges as needed, provide training and guidance
Schools Level Science Fair Committee	Volunteers Chaired By the Project Advisor	<ul style="list-style-type: none"> • Provide materials for the running of the school level science Fair. • Conduct road shows and training in the respective states. • Work with the State coordinators to make the programme a success.

Groups	Members	Job Function
State SFYC Organizers	State Level Partner organizations and Coordinators	<ul style="list-style-type: none"> The State committees will be given a free hand to run their own science fair within the broad guidelines set by the Working Group. Seed funding will be given to the state committee, provided the Key Performance Indicators (KPI) are met. The State committees that fail to meet the KPI will not be provided with any funds, and the fair may not be held in the said state. The seed funding, as per the proposal, will be returned to the donors. The State committees are required to recruit sufficient volunteers to serve as facilitators and organising team members. The State committees are encouraged to seek their own means of funding to cover the expenses incurred, based on their plan. The respective schools may request to change the zones if there are good reasons (e.g. distance to the State Committee's HQ). The acceptance of their request is at the full discretion of the Working Group.
Facilitators Group Implementation Committees	Teachers and Volunteers (University students)	<ul style="list-style-type: none"> Help out in organizing zone level and national level fair

Table 1.3: Responsibilities of Each Group



1.7 Achievements of the Project

Below is the progress of Science Fair since 2007.

Year	Zones	No. of Schools Participated	No. of Teams Participated	No. of Students Participated
2007	Selangor and Wilayah Persekutuan Only	44 Schools	49 Schools	49 x 5 Students=245
2008	National Level (6 Zones)	180 Schools	197 Schools	197 x 5 Students = 985
2009	National Level (6 Zones)	188 Schools	207 Schools	207 x 5 Students =1,035
2010	National Level (9 Zones)	263 Schools	285 Schools	285 x 5 Students =1,425
2011	National Level (9 Zones)	274 Schools	274 Schools	274 x 5 Students =1,370
2012	National Level (9 Zones)	269 Schools	269 Schools	269 x 5 Students =1,345
2013	National Level (9 Zones)	282 Schools	282 Schools	282 x 5 Students =1,410
2014	National Level (9 Zones)	261 Schools	261 Schools	261 x 5 Students =1,305
2015	National Level (9 Zones)	221 Schools	221 Schools	221 x 5 Students =1,105
2016	National Level (9 Zones)	258 Schools	258 Schools	258 x 5 Students = 1,290

Table 1.4: Progress of Science Fair since 2007

In 2016, the Zone Level Science Fair was held in 9 zones. A total of 258 Tamil schools participated in Zone Level Science Fair. From the 258 schools, 60 best schools were shortlisted to participate in National Level Science Fair 2016 that was held at German Malaysian Institute, Bangi on 16th and 17th July 2016 (Saturday & Sunday).

It was noted that the students who qualified from the Zone Level Science Fairs had improved their presentation and public communication skills during their presentation at the National Level Science Fair. The students brought Science to life through their hands-on experiments as they tackled investigative questions which helped them to develop and demonstrate their interest and knowledge in science enquiring. They were able to explain their findings to the judges and members of public confidently.

The Tamil school students who participated in SFYC had shown improvements in the thinking process and noticeably in many areas, among them:

- students solved the problems by using scientific methods.
- students asked questions, formed hypotheses and created experiments to test their hypotheses.
- students were able to collect data from their experiments and present them in an easy-to-understand manner.
- students studied recorded data and drew conclusions from it.
- students communicated their scientific research articulately and confidently to others.
- students worked co-operatively as a team.
- students budgeted their time, organised their work into manageable chunks, kept to a schedule and delegated work diligently.
- students developed their reading, writing, research and computer skills.
- students were able to answer questions from different perspectives.
- students were confident during the presentations.

Some of the Achievements of the participants of SFYC in competitions.

Competition	School Name	Achievement (Medal)
Raja Zarith Sofiah Wildlife Program 2016	SJK(T) Taman Tun Aminah	Second place for T-Shirt Design - Primary School
	SJK(T) Taman Tun Aminah	Third place for Scrap Book - Primary School
	SJK(T) Taman Tun Aminah	Second place for Overall - Primary School
Kuala Lumpur Engineering Science Fair	SJK(T) Jalan Yahya Awal (9 teams), SJK(T) Rama Krishna (2 teams), SJK(T) Blue Valley (1 team), SJK(T) Raub (4 teams), SJK(T) Sungai Ara (1 team), SJK(T) Mount Austin (2 teams), SJK(T) Kinrara (1 team) and SJK(T) Pasir Gudang (2 teams)	<ul style="list-style-type: none"> • More than 120 teams including international schools in the primary category participated in the fair. • Two gold, 4 silver and 6 bronze were won by the schools. • SJK(T) Ramakrishna won a gold and a bronze. • SJK(T) Jalan Yahya Awal won a silver and a bronze. • SJK(T) Pasir Gudang won a Silver. • Another bronze medal was won by SJK(T) Raub.
Inventions - Belgrade 2016	SJK(T) Sungai Ara from Pinang and SJK(T) Tun Aminah from Johor represented ASTI and participated in a prestigious invention competition in Europe.	<ul style="list-style-type: none"> • SJK(T) Taman Tun Aminah won a silver medal. • SJK(T) Sungai Ara won a honorary mention.
Invention, Innovation & Design Exposition 2016	SJK(T) Ladang Bee Yong and SJK(T) Blue Valley	Gold
	SJK(T) Mentakab, SJK(T) Ringlet, SJK(T) Kangkar Pulai and SJK(T) Raub	Silver
	SJK(T) Mentakab, SJK(T) Raub, SJK(T) Jalan Yahya Awal and SJK(T) Nibong Tebal	Bronze
International Young Inventors Award 2016 (IYIA 2016) - Surabaya, Indonesia	SJK(T) Buloh Akar	Gold medal and Special Award at IYIA 2016.
	SJK(T) Kajang	Silver medal
	SJK(T) Mentakab	Bronze medal
UiTM Competition	SJK(T) Kangkar Pulai	2 Gold medals and best commercialization award
National Robotic Competition Pahang Zone	SJK(T) Ringlet	<ul style="list-style-type: none"> • Third Prize and Best Innovation Award • Excellence Award and Best Mentor Award

Competition	School Name	Achievement (Medal)
Penang Robotics Competition	SJK(T) Ramakrishna	A Silver medal and will represent the state at the national level.
National Robotic Competition Johor state level	SJK(T) Jalan Yahya Awal	<ul style="list-style-type: none"> • Best Innovation Award and Excellent Award for Elementary Open Category • 4th placing in the competition
World Abacus, Arithmetic And Mathematics Competition	SJK(T) Bukit Mertajam	<ul style="list-style-type: none"> • Year 2 student Vibisha Tharmaseelan won a silver prize.
Future Scientist Conference 2016, UKM	SJK(T) Mount Austin	<ul style="list-style-type: none"> • Bronze medal - They researched and invented a mini hydro electric device that can be fitted into a water pipe to generate electricity.
iCAN2016 Preliminary Evaluation Result	SJK(T) Mentakab	Gold - Finalist to attend iCAN 2016 Final Round Exhibition & Award Ceremony in Canada.
ITEX Malaysia 2016, 12-14 May 2016 at Kuala Lumpur Convention Centre	SJK(T) Yahya Awal	Double Gold (Asia category)
	SJK(T) Kajang	Double gold
	SJK(T) Mentakab	Double silver
International Science Drama Competition 2016, Singapore	SJK(T) Taman Permata and SJK(T) Teluk Merbau	<ul style="list-style-type: none"> • Second prize • Vishalan Kumaran from SJK(T) Teluk Merbau won the outstanding performer award.
I-Envex 2016 at UNIMAP (Universiti Malaysia Perlis)	SJK(T) Jalan Yahya Awal	<ul style="list-style-type: none"> • Won gold for their invention called E- mice trap.
International Festival Innovation on Green Technology (i-FINOG) 2016, University Malaysia Pahang	SJK(T) Mentakab	<ul style="list-style-type: none"> • Gold • Also won special award from Korean Inventors Association for their invention.
	SJK(T) Jalan Yahya Awal	<ul style="list-style-type: none"> • One gold and two silvers • They also won two special awards from the Korean Inventors Association for their inventions.
Malaysia Technology Expo 2016 (18th-20th February 2016), Razak Hall, PWTC	SJK(T) Jalan Yahya Awal	The only Tamil school that was selected for this international competition for their two inventions which were High Precision Calorimeter and Eco Dual Function School Bag.



G. SWATHI

ಶಿಶು-ಶಿಲ್ಪಿ
YOUNG SCIENTIST
National Science Fair for
Young Children 2014



School Level Science Fair 2016

2.1 Introduction

There are three reasons why science is important for our children:

1. Children love science because it engages their curiosity.
2. Science provides practical tools for understanding everyday life.
3. Science advances critical thinking, problem solving and creativity in early learners.

The School Level Science Fair (SLSF) was initially introduced in Tamil schools back in 2009 as a pilot project in Johor, also known as Zone 8. The project was conducted in all 70 Tamil Schools in Johor and it was a great success.

With the pilot project results, the SFYC advisory board concluded that School Level Science Fairs create a better impact and more students nationwide would benefit from it. Thus, the board decided that the School Level Science Fair has to be introduced in all states throughout Malaysia. As a result, the board undertook the task of conducting and implementing the fair in every zone. The fair was first implemented nationally by a special school level science fair committee chaired by the founder of the project Dr. Mohamed Yunus Yasin.

In 2010, each school was provided up to RM300 depending on their size to assist them to organise School Level Science Fairs and as a result about 98 schools staged such fairs.

By 2011, after receiving positive feedback, SLSF had increased its target participation to at least 250 schools by having national level roadshows in 9 zones across the nation. The response from the participating schools was overwhelming and beyond our expectations. A total of 264 schools successfully organised the fair in their respective schools. In 2012, we set the bar even higher by targeting 325 schools. But 365 schools successfully staged the fairs exceeding our target. Meanwhile in 2013, a total of 423 schools held their School Level Science Fair, averaging more than 1 fair per day for 2013.

For 2016, a compiled CD of SLSF and ZLSF were prepared with sample proposals, forms, experiments, and reports, guidebook for parents & teachers and modules.

2.2 Seed Funding

In 2016, each school that confirmed its participation by sending their proposal to the zone coordinators were given prizes such as medals, certificates and story books. Each school was given 100 story books and certificates of participation for their students.

The schools were given from February 2016 until June 2016 to organise School Level Science Fair in their school. This year a total of 308 schools out of 523 Tamil schools organised in School Level Science Fairs.

2.3 Implementation of School Level Science Fair 2016

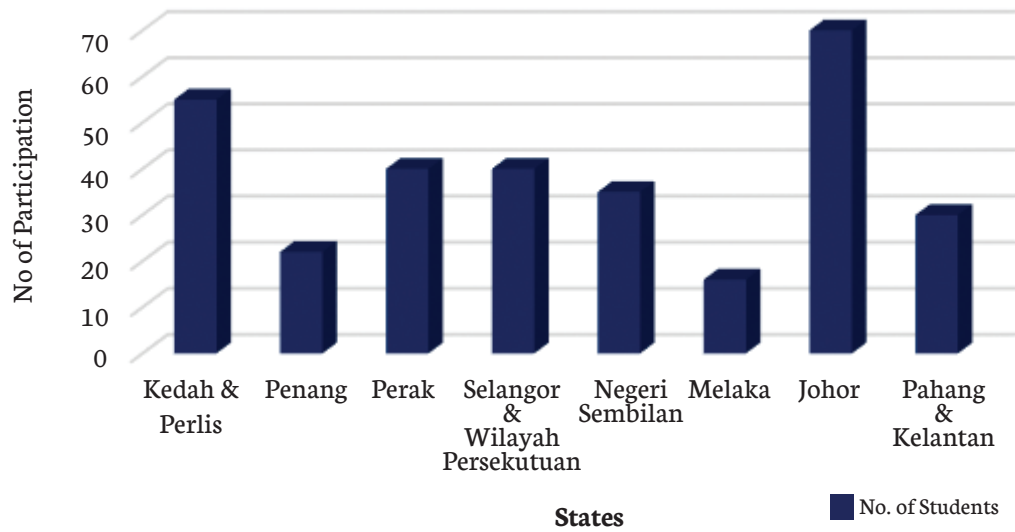
This year the School Level Science Fair for Young Children started in February 2016. Just like in the year 2014, the organising committee has decided to combine both the School Level & Zone Level Science Fair Teachers Training. An official invitation letter inviting teachers and headmasters/headmistress to participate in School Level & Zone Level Science Fair Teacher's Trainings was sent by each zone coordinator.

The participation of schools in School Level Science Fairs has been increasing year by year. The details of their participation in the past years are shown in the table below.

Zone	State	Total Schools						
		2010	2011	2012	2013	2014	2015	2016
1	Kedah & Perlis	-	46	43	56	32	45	55
2	Pulau Pinang	-	-	14	20	26	28	22
3	Perak	-	45	73	93	80	50	40
4 & 5	Selangor & Wilayah Persekutuan	11	36	59	87	50	35	40
6	Negeri Sembilan	-	20	46	42	40	55	35
7	Melaka	-	21	21	21	17	12	16
8	Johor	70	70	70	72	68	70	70
9	Pahang	1	18	12	32	25	32	30
TOTAL		82	256	338	423	338	327	308

Table 2.1: Schools Participation in SLSF from 2010 till 2016

SLSF Participation by State for 2016





Zone Level Science Fair 2016

3.1 Introduction

Over the years, the participation of schools in the Zone Level Science Fair has been on the rise. The organisers initially divided the nation into 6 zones. In 2010, due to experience gained by the organisers on how to run the Zone Level Science Fair and the need to give more schools the opportunity to participate in the fair, the organising committee predesignated the zones and increased the number of zones to nine. We have maintained these zoning criteria since then and it has proven to be optimal by organisers and acceptable to schools.

In order to accommodate the increased number of schools participating, another change was made to the Zone Level Science Fair in 2011. The number of teams each school was allowed to participate was changed. Up to 2 teams from each school were allowed in the past. After the change was made, only 1 team from a school was allowed. This change however did not cause a drastic reduction in the number of teams participating because the number of schools that took part had increased. In fact, in 2013 a total of 282 teams, and 261 teams in 2014, participated nationwide. In 2015, 221 schools participated in Zone Level Science Fair and in 2016 it increased to 258 schools.



Zone	2008 and 2009	2010 - 2016
1	Kedah, Pulau Pinang & Perlis	Kedah and Perlis
2	Perak	Pulau Pinang
3	Selangor & Kuala Lumpur	Perak
4	Melaka and Negeri Sembilan	Selangor
5	Johor	Kuala Lumpur, Wilayah Persekutuan
6	Pahang & Kelantan	Negeri Sembilan
7	-	Melaka
8	-	Johor
9	-	Pahang and Kelantan

Table 3.1 : Comparison of Zone Categories

Zone	State	Total Schools	
		2008	2009
1	Kedah, Pulau Pinang & Perlis	28	28
2	Perak	18	15
3	Selangor & W.P Kuala Lumpur	58	74
4	Melaka & Negeri Sembilan	4	3
5	Johor	57	54
6	Pahang & Kelantan	15	14
TOTAL		180	188

Table 3.2 : Participation of Schools in Zone Level Science Fair in 2008 and 2009



Zone	State	Total Schools					
		2010	2011	2012	2013	2014	2016
1	Kedah & Perlis	17	41	34	52	49	47
2	Pulau Pinang	16	16	19	14	18	14
3	Perak	50	47	53	56	48	38
4	Selangor	54	56	35	43	9	31
5	Wilayah Persekutuan, Kuala Lumpur	14	13	10	10	19	12
6	Negeri Sembilan	18	18	30	30	34	30
7	Melaka	21	21	21	21	10	19
8	Johor	59	45	52	37	49	38
9	Pahang & Kelantan	14	17	15	19	25	29
TOTAL		263	274	269	282	261	258

Table 3.3: Participation of Schools in the Zone Level Science Fair in 2010, 2011, 2012, 2013, 2014 and 2016

The Zone Level Science Fairs were held in April and May 2016. The shortlisted schools for the National Level Science Fair were given sufficient time to improvise their experiment. The details of the Zone Level Science Fairs are shown in the table below.

Zone	States	Dates	Venues
1	Kedah & Perlis	14 May 2016 (Saturday)	AIMST University, Semeling
2	Pulau Pinang	28 May 2016 (Saturday)	Dewan Utama Kampus Kejuruteraan, USM
3	Perak	15 May 2016 (Sunday)	Bitarasiswa, Kampus Sultan Abdul Jalil Sha, UPSI
		28 May 2016 (Saturday)	SJK (T) St. Theresa's Convent
4	Selangor	30 April 2016 (Saturday)	Dewan Tunku Canselor, University Malaya
5	W.P Kuala Lumpur	30 April 2016 (Saturday)	Dewan Tunku Canselor, University Malaya
6	Negeri Sembilan	28 May 2016 (Saturday)	Nilai Commercial Centre
7	Melaka	28 May 2016 (Saturday)	Rumah Media MITC, Ayer Keroh
8	Johor	21 May 2016 (Saturday)	Dewan Serbaguna, Johor Jaya
9	Pahang & Kelantan	8 May 2016 (Sunday)	SMK Hwa Lian, Mentakab

Table 3.4: Zone Level Science Fair 2016 Dates and Venue





4

Training and Development

4.1 Training Preparation and Progress

4.1.1 Science Fair Folder

The Science Fair folder is a key tool for the organisers, teachers, students, parents, facilitators and judges to help them implement the project effectively and efficiently. The Working Group Committee (WGC) members and a group of professionals prepared this folder for the first time in 2008. The following year, the folder was revised, reviewed and translated into English and Tamil by the Working Group Committee (WGC) and Secretariat based on comments from teachers, students, organisers and judges. In 2014, the folder was revised again, where new partially guided experiments were added and distributed in the form of VCDs to all the participating schools during the Zone Level Teachers Training. Some of the new schools were also given the hardcopy folder/file. The content of the folder is as follows:

1. **How to use this folder:** Explains how the folder should be used by each group/stakeholder.

2. **Science Projects, Scientific Methods and Science Fair:** Simple explanation about what a science project is, scientific method and science fair.

3. **Organisers Manual:** Basically gives an explanation on how to organise a science fair. Examples on holding it in schools, classrooms, organisations, etc.

4. **Teachers Manual:** Explains the roles and responsibilities of the Science Teachers to guide the participants of the fair.

5. **Students Manual:** Helps the students to develop their project and provides the format for writing a report.

6. **Parents Manual:** Guides the participant's parents on how to help motivate their child to perform well in SFYC.

7. **Facilitators Manual:** Gives a guideline to the facilitators on how to facilitate so that they can help teachers and students during school visits.

8. **Judges Manual:** Gives proper guidelines on how to judge a science project effectively. This manual has been improved considerably after 2013's feedback on the judging criteria.

9. **Scientific Paper Presentation:** Guidelines for Scientific Paper Presentation preparation for the 60 eligible teams for National Level Science Fair.

10. **Partially Guided Experiments:**
There were 20 partially guided experiments given in English and Tamil to be chosen by the schools.

We hope that the manual would be helpful for future members to organise science fairs at school, zone or national levels. The manual was upgraded from time to time to improve the quality and output of the Science Fair for Young Children.



4.1.2 VCD Production

Previously, all the materials in the SFYC folder were given out to schools in hardcopy format, but for the past six years the content of the folder was made into VCDs and were given to all the participating schools during the Teachers Training. However, since the School Level & Zone Level Teachers Trainings had been combined since 2014, the content of the VCD had also been combined and upgraded with new information to help schools prepare for the School Level, Zone Level and National Level Fairs. The content of the VCD is shown below:

School Level Science Fair

- i. SLSF 2016 Booklet
- ii. Proposal Format
- iii. Report Format
- iv. Judging Form
- v. Evaluation Form of Scrapbook
- vi. Additional Activities for Students and Visitors
- vii. Additional Materials such as picture gallery, motivational recordings & SLSF Checklist
- viii. Experiment for Students (Standard 1 - 5)
- ix. Parents' Guide
- x. Teachers' Guide

Zone Level Science Fair

- i. Science Fair Folder Content (PDF Copy)
- ii. ZLSF Experiment titles (Doc & PDF Copy)
- iii. Sample Research Paper of NSFYC 2015 (PDF Copy)
- iv. Booth Set-Up and Preparation of NSFYC 2015 (Video)
- v. Photo Gallery of NSFYC 2015

4.1.3 Training for Trainers

Training for Trainers was conducted by Dr. Mohamed Yunus Mohamed Yasin (Founder of ASTI) and Dr. Subramaniam Gurusamy, Advisor of Science Fair for Young Children. They briefed on SLSF & CD Content, Judging Methodology and Requirements, ZLSF Experiments & CD Content and Project ALI & EDUCATE. Before the training team conducted the Zone Level Science Fairs teachers training, they were briefed by Dr. Subramaniam on the agenda and information to be delivered to the teachers. Below was the agenda of the training for trainers and teachers:

Time	Details
8.30 am - 9.00 am	Arrival and Registration
9.00 am - 9.05 am	Welcoming Speech by Organizer
9.05 am - 9.10 am	Speech by MGB Chairman
9.10 am - 9.20 am	Opening Ceremony and Speech By Guest of Honour, Penyelias Sekolah Tamil
9.20 am - 9.45 am	Introduction of SFYC by Organizer
9.45 am - 10.30 am	SLSF 2016 Introduction and Overview Presentation 1 <ul style="list-style-type: none"> • Introduction of Partner Organizations • How to Organize School Level Science Fair? • Experiment & CD Content
10.30 am - 11.00 am	Tea Break
11.00 am - 12.00 pm	Judging Methodology and Requirements Presentation 2 <ul style="list-style-type: none"> • Judging Procedure
12.00 pm - 1.15 pm	ZLSF 2016 Experiment and CD Content Presentation 3 <ul style="list-style-type: none"> • CD Content • Experiments
12.15 pm - 1.30 pm	Evaluation of School Level Science Fair
1.30 pm	Certificate Presentation & Lunch.

Table 4.1: SLSF & ZLSF Teachers Training Agenda

4.2 School Level and Zone Level Teachers Training

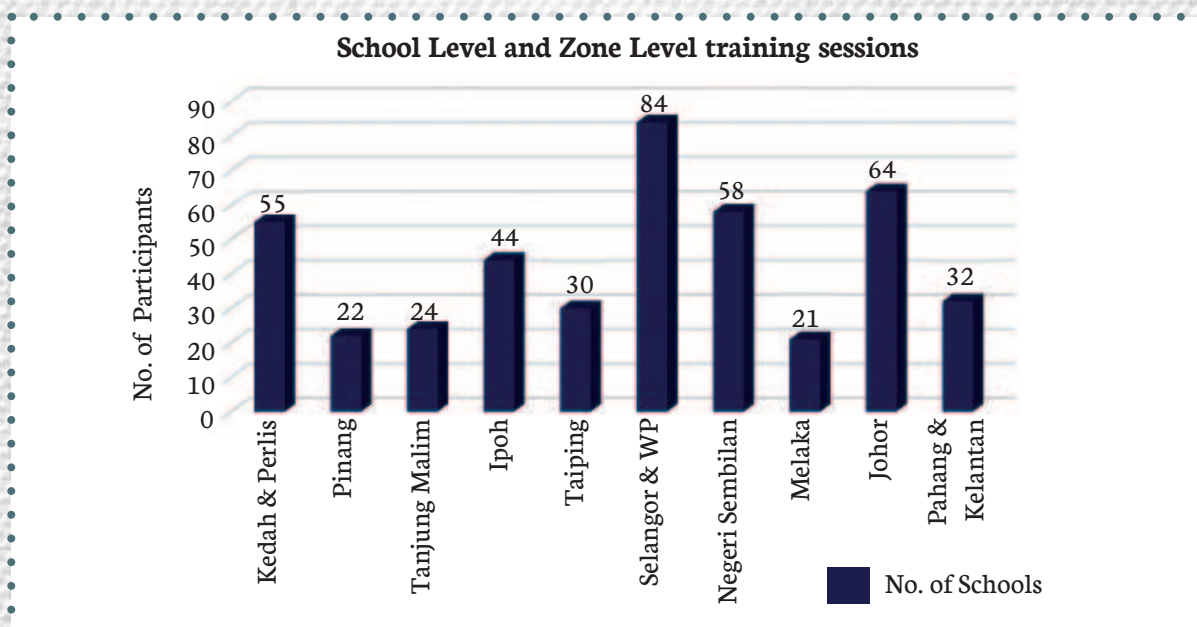
Just as in year 2014, this year's School Level & Zone Level Science Fair Teachers Trainings were combined and conducted as a half-day session. The training was conducted in all the 9 zones on different dates. The session was facilitated by the Organizing Committee together with the facilitators.

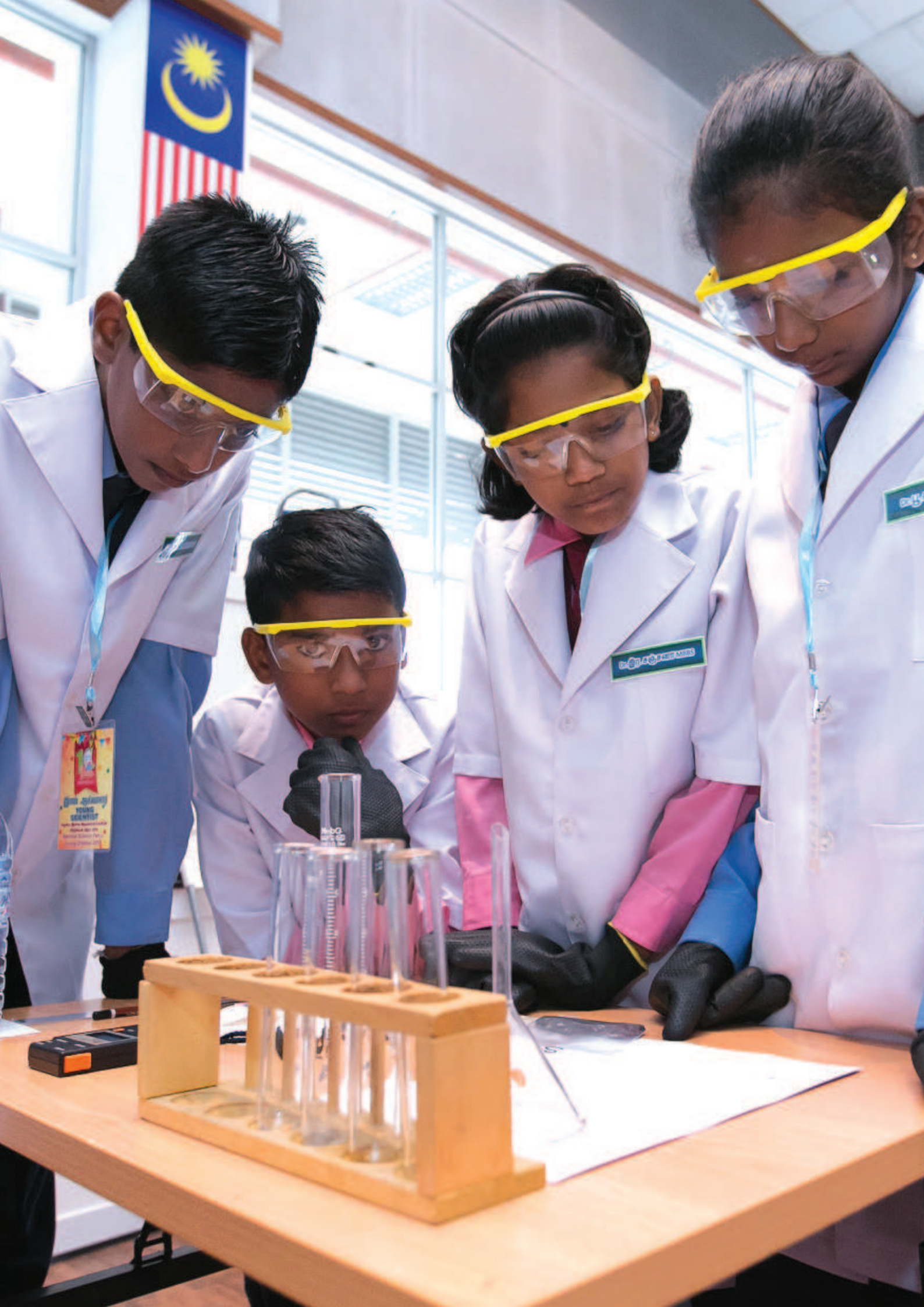
The respective zone coordinators arranged the training sessions and the training sessions were conducted by the trainers from the Working Group Committee.

The training sessions and materials were prepared and planned by the trainers from the Working Group Committee and the training dates were given by the respective zone coordinators in advance so that the training teams could make prior arrangements. Below are the details of all the School Level and Zone Level training sessions that were conducted.

Zone	State	Training Dates	Training Venue	Schools Participation
1	Kedah & Perlis	5 March 2016	PPD Kuala Muda, Sungai Petani	55
2	Penang	5 March 2016	USM, Dewan Pembangunan Siswa 1, Kompleks Cahaya	22
3	Perak	27 February 2016	UPSI, Tanjung Malim	24
		28 February 2016	SJK(T) Kerajaan, Ipoh	44
		5 March 2016	SJK(T) St. Theresa's Convent, Taiping	30
4 & 5	KL & Selangor	27 February 2016	BAC College, PJ	84
6	Melaka	12 March 2016	SJK(T) Lobak	58
7	Negeri Sembilan	5 March 2016	SJK(T) Durian Tunggal	21
8	Johor	27 February 2016	UTHM Batu Pahat	64
9	Pahang	27 February 2016	SJK(T) Mentakab	32
Total				434

Table 4.2: Participation of the Schools in the SLSF & ZLSF Teachers Training







National Science Fair for Young Children 2016

5.1 Overview

The National Science Fair for Young Children 2016 was held as a two (2) day event which started on 16th July 2016, Saturday morning at 7.00am and ended on 17th July 2016 at 3.00pm. The event was a great success. The details of the event are as follows:


Date : 16th July 2016 (Saturday) and 17th July 2016 (Sunday)

Venue for Science Fair Event : German Malaysian Institute, Bangi, Selangor.

A special team was set up to organise the two (2) day National Science Fair for Young Children 2016 a month prior to the event by the Working Group Committee. The event committee was led by Ms. Umahsankariah Muthunaikar. A total of 13 departments were formed and tasks were delegated to each Head of Department (HOD). The list of HODs is shown in Table 5.1 below. The NSFYC was assisted by more than 53 volunteers from Universiti Tenaga Nasional (UNITEN) and Universiti Pendidikan Sultan Ismail (UPSI).

No	Name	Position
1	Mr. Jayashri Selvendran J Thanapal	Project Director
2	Ms. Umahsankariah Muthunaikar	Head of Event Committee
3	Ms. Vanitha Vasu	Head of Volunteers Management
4	Mr. Sakthivel Ganesan Mr. Sivaraj Arumugam	Head of Safety & Hall Management
5	Mr. Jaganath Rajaendran Mr. Nutanaya Sivaceyon	Head of Crowd Management
6	Ms. Vijayaletchumy Rajoo Ms. Shubashini Mathyalingam	Head of Judging & Conference Department
7	Ms. Kalaimathi Adimulam	Head of Stage & Prizes Management
8	Mr. Tilagan Narayanasamy	Head of Food & Beverage Management
9	Mr. Thirunaursan Ramjan	Head of Media Management
10	Ms. Nanthini Rajandran	Head of Press Management
11	Mr. Sharvin Rao	Head of Traffic, Transportation & Security Department
12	Ms. Viji Gopal	Head of Ushering Department
13	Mr. Joseph Edwin	Head of Survey Department
14	Ms. Kalaivany Paramaisevam	Head of Registration Department

Table 5.1: List of Heads of Departments for the National Science Fair for Young Children 2016



The various job functions making up the event were well coordinated by the volunteers and integrated well to result in a smooth, seamless, well run two (2) day event. The Head of Event Committee and the HODs executed the tasks well with the volunteers to ensure those participating in and those visiting the fair could do so easily and were provided with all the necessary assistance needed.

The events were coordinated as follows:

16th July 2016, Saturday

The event began on 16th July 2016 with Registration at 7.00 am. Registration was open from 7.00 am till 9.00 am. A goodie bags containing T-shirt, Tag, Guidebook, Souvenir Book, 2015 Science Fair for Young Children Report, 2014 ASTI Annual Report and 2015 ASTI Annual Report was given to each school during registration. Each school was given token for transportation and accommodation on the second day of the event. Next was Hands on Experiments session from 9.00 am till 11.00 am. It was compulsory for all the selected 60 schools to participate. Students were given questions and apparatus to do experiment on the spot. From 9.30 am to 4.30 pm was Teachers Sharing Session.

A few speakers were invited to give talk during the Teachers Training Session. Mr. Kamaruddin Kassim from Petrosains gave an activity based talk, Mr. Sivabalan Sothinathan from Uma Publication gave a talk on IT in Education and Dr. Subramaniam Gurusamy from ASTI gave a talk on 21st Century Education. There were also Judging Sharing Session led by National Chief Judge, Mr. Saravanan Manian and Teachers Sharing Session, a discussion with ASTI Committee. In the Judging Sharing Session Mr. Saravanan Manian explained the judging criteria for the Scientific Paper Presentation, Booth Judging and Hands on Experiment. The session ended by giving out certificates to teachers and a set of books for each school.

The judges arrived at 7.00 am to get started with their judging task. Lunch Break was given from 1.00 pm to 2.00 pm. After lunch break, it was time for Cross Judging Session at 2.00 pm until 4.30 pm. Tea Break was served at 4.30 pm and then refreshment. Then, Opening Ceremony began at 8.00pm. The guest of honour for the opening ceremony was Prof Datuk Dr. N.S. Rajendran - Director of Socio Economic Development of Indian Community (SEDIC) Prime Minister's Department. He was accompanied by Dr. Yunus Yasin - President of ASTI, Mr. Paskaran Subramaniam, Mr. Nadarajah Kalimuthu, Dr. Subramaniam Gurusamy - Vice President of ASTI, Mej. Dr. Vikneswaran Munikanan - Treasurer of ASTI, Mr. Selvendran J. Thanapal - Project Director of SFYC 2016, Mr. Sadhis Kumar - Deputy Project Director of SFYC 2016, State PST & MGB and State Coordinators. The Welcoming speech was given by Dr. Subramaniam Gurusamy, Vice President of ASTI. Followed by opening remark by the guest of honour Prof Datuk Dr. N.S. Rajendran, Socio Economic Development of Indian Community (SEDIC) Prime Minister's Department also officiated the event. Science Fair contributors for the past 10 years were honoured in the ceremony.

Last year's winner SJK(T) Alma was invited to place the Challenge Trophy. After the opening ceremony, Scientific Paper Presentation began at 9.45 pm. The 5 shortlisted schools did the presentation. Other schools that were shortlisted were allowed to watch the presentation. It was bedtime after the session ended at 11.15 pm.



17th July 2016, Sunday

The second day of National Science Fair began at 8.00 am with breakfast. The breakfast was from 8.00 am till 9.00 am. After breakfast was Re-judging. It was held from 9.00 am until 11.00 am. Public viewing was held simultaneously from 9.00 am to 12.30 pm. During this time PST - MGB Forum was held. The PST - MGB Forum is the discussion on the current and the future Science Fair. Lunch was served from 12.00 noon till 1.00 pm for the participants.

Next on the agenda was the Closing & Prize Giving Ceremony. It began at 2.00 pm and ended at 3.45 pm. There were 3 categories of winners: Creativity Category, Conference Paper Presentation and NSFYC Winners. All categories were judged by capable judges. The top 3 winners of the Creativity Category received certificates and cash prizes worth RM700, RM500 and RM300. The top 3 winners of the Conference Paper Presentation also received certificates and cash prize of RM500, RM400 and RM300. The Platinum winner received trophy, certificates and cash prize of RM2,000. The 5 Gold winners received trophy, certificates and cash prize of RM1,500. Meanwhile the Silver and Bronze winners took home trophy and certificates.

A total of 1 Platinum, 5 Gold, 20 Silver and 34 Bronze awards were given. All these teams were leaders from their respective zones. All the NSFYC participants went back home with medals, T-shirts as souvenir and certificate of participation. The judges who contributed towards science fair were given certificates and goodie bags. The volunteers who helped during science fair were also given certificates and T-shirts. Teachers were given certificates and T-shirts.

The list of NSFYC 2016 winners is as follows:

PLATINUM AWARD

SJKT Sungai Ara

GOLD AWARD

SJKT Mentakab

SJKT Lobak

SJKT Permas Jaya

SJKT Yahya Awal

SJKT Tun Aminah

INNOVATION AWARD

1. SJKT Kamunting

2. SJKT Kulai Besar

3. SJKT Palanisamy

CONFERENCE PAPER AWARD

1. SJKT Kulai Besar

2. SJKT Permas Jaya

3. SJKT Karak



Research and Development Department

6.1 Experiments

The experiments were developed by the Judging R&D Department of ASTI. A team comprising professionals from various fields was formed. They developed a list of partially guided experiments that consisted of 20 experimental titles. All the experiments were then analyzed for their relevance, cost, applicability, difficulty, material availability and safety. The core judges and advisors of SFYC will then discuss and finalise these experiments. Then, the finalized experiments will be sent for translation into Tamil language, and once translated will be forwarded to all schools. The list of experiments is attached in *Appendix C*.

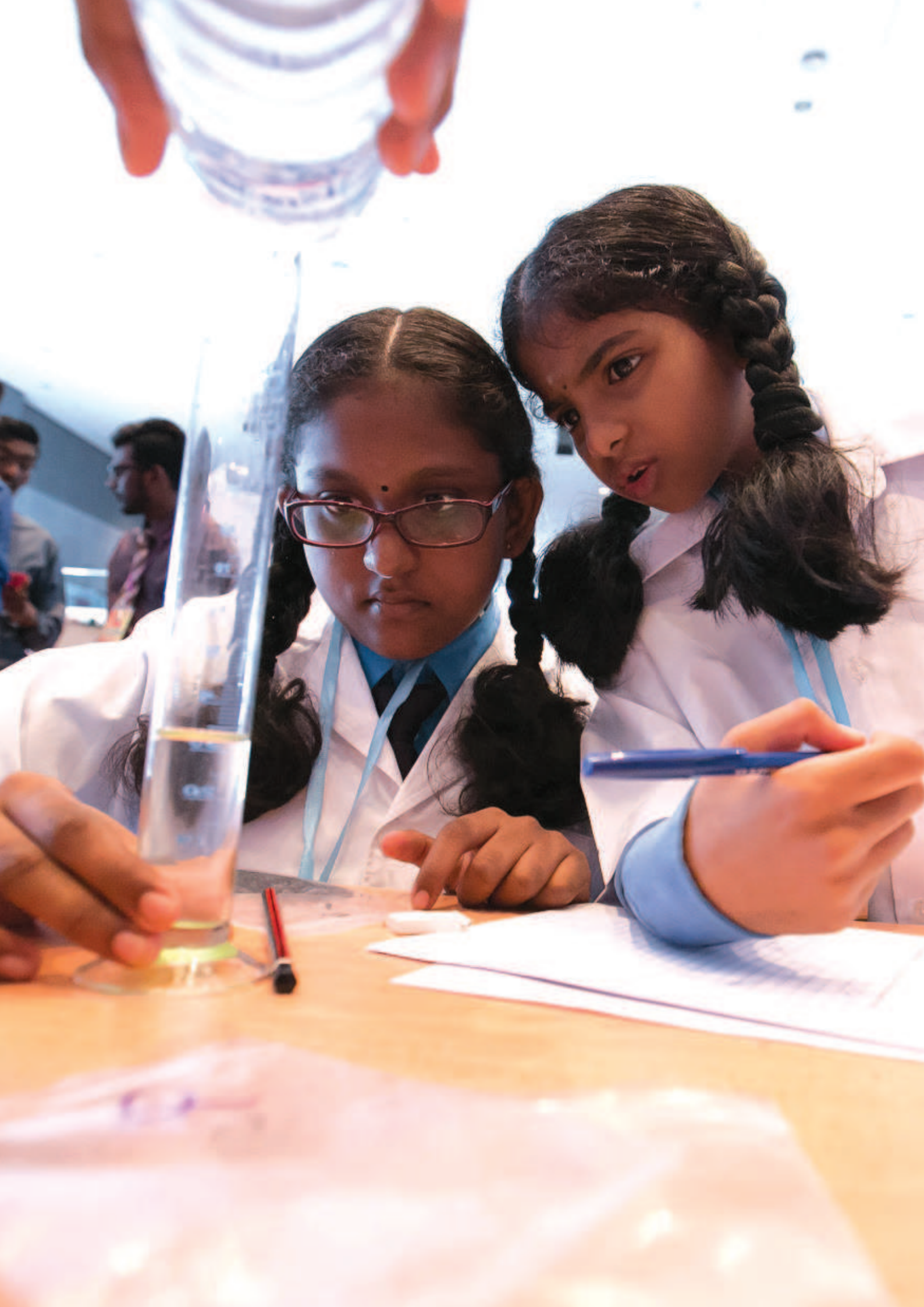
6.2 Surveys

This year the R&D Department conducted the following surveys:

- I. School & Zone Level Science Fair Teachers Training
- II. Zone Level Science Fair for Young Children
- III. National Level Science Fair for Young Children
- IV. Survey on Effectiveness of Science Fair for Young Children
- V. Questionnaire for Teachers at Seminar/Workshop

The data collected from the surveys will be used to correct and upgrade our future projects. A separate R&D report will be prepared based on these surveys.







Public Relations

For Science Fair for Young Children 2016, the Public Relations (PR) Department managed the flow of information between the organisers of the Science Fair and general public. Information about the Science Fair for Young Children programme was promoted to the public via press releases and interviews over radio and national television.

The flow of information between internal and external stakeholders was reached through various levels such as the School Level Science Fair, Zone Level Science Fair and the National Level Science Fair. The Public Relations activities that were carried out to promote the Science Fair for Young Children 2016 are shown below:

1) SFYC Soft Launching

- Science Fair for Young Children 2016 Soft Launching was officiated by Datuk Prof. Dr.NS. Rajendran, Director of SEDIC on 20th February 2016 at Dynasty Hotel, Kuala Lumpur.
- The Science Fair for Young Children 2016 Soft Launching was broadcasted over RTM TV2 Tamil News.
- The Science Fair for Young Children 2016 Soft Launching was published in Tamil newspapers, such as Thaimoli, Nanban and Makkal Osai.

2) School Level Science Fair 2016

- Press release for School Level Teachers Training in Tamil media newspapers such as Malaysia Nanban, Thinakural, Makkal Osai, Thaimoli and Tamil Nesan.
- Promotional via SFYC Facebook & Website.

3) Zone Level Science Fair 2016

- Press release for Zone Level Teachers Training and Zone Level Science Fair by zone in Malaysia Nanban and Thaimoli.
- ASTI Pamphlets were distributed to the coordinators for them to promote the Fair in their respective zones.
- Interview on Vasantham, RTM2 attended by Dr Mohamed Yunus Mohamed Yasin, Dr. Subramaniam Gurusamy and Mr. Pandu Rengan (Head Master of SJKT Jalan Khalidi, Muar).

- Dissemination of information via SFYC & ASTI Website.
- Dissemination of information via SFYC & ASTI Facebook.

4) National Level Science Fair 2016

- Pamphlets were sent to VIPs, Guests, Funders and all well-wishers to provide information about the NSFYC.
- NSFYC 2016 invitations were sent to VVIPs, VIPs, Guests, Public University and Private University lectures, funders and well-wishers.
- A special invitation was sent to the public to attend the NSFYC 2016.
- Dissemination of information via SFYC & ASTI Website.
- Dissemination of information via SFYC & ASTI Facebook.
- The National Science Fair for Young Children 2016 was published in Makkal Osai, The Malaysia Nanban, Tamil Nesan, Thaimoli, Utusan Melayu, The New Straits Times and the Star. It was also broadcast online in Vanakam Malaysia.

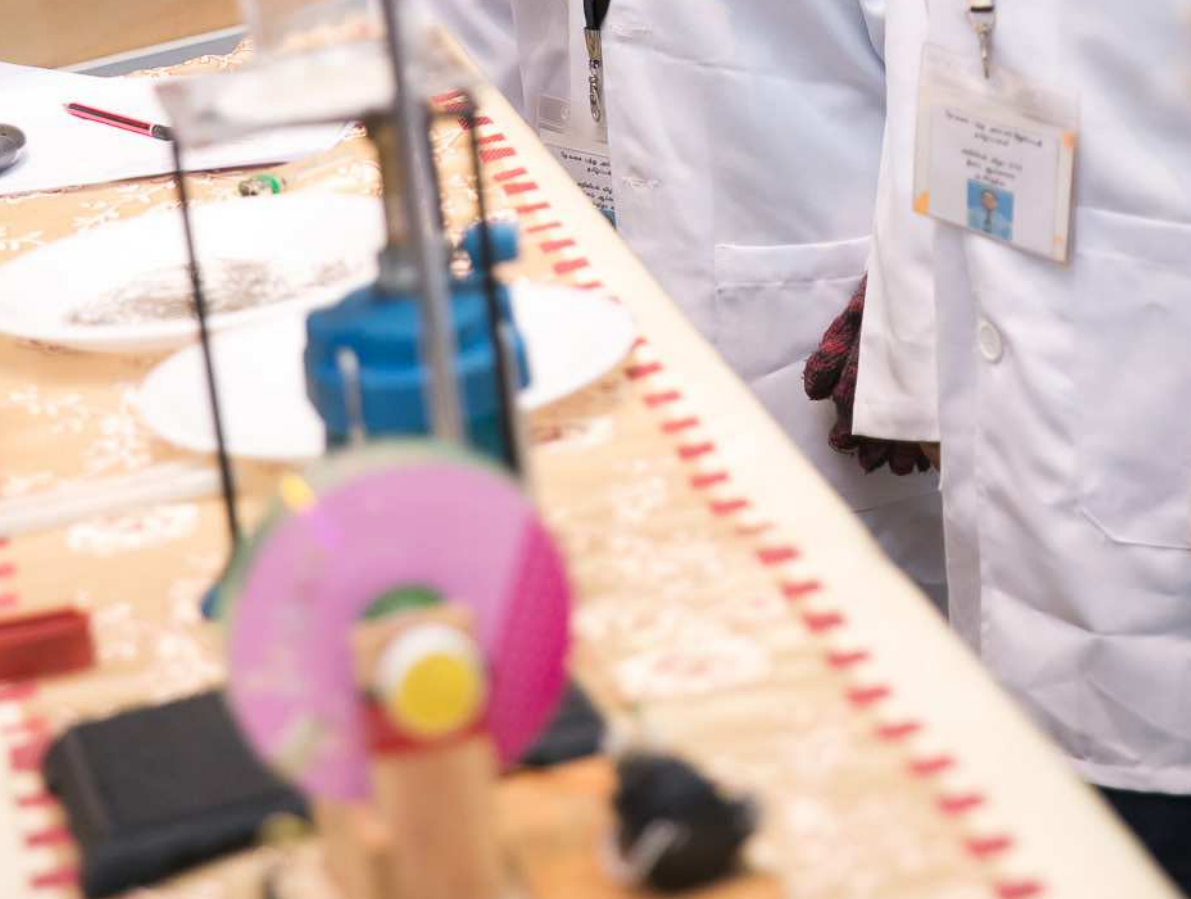
5) Post-National Level Science Fair 2016

- SJK(T) Mount Austin students won bronze in Future Scientist Conference 2016, UKM. They did research and invented mini hydro electric device that can be fitted into a water pipe and generate electricity.
- SJK(T) Bukit Mertajam Year 2 student Vibisha Tharmaseelan won silver prize at World Abacus, Arithmetic And Mathematics competition.
- SJK(T) Jalan Yahya Awal won two awards in National Robotic Competition Johor state level. They won Best Innovation Award and Excellent Award for Elementary Open Category. They also achieved 4th placing in the competition.
- SJK(T) Ramakrishna of Penang won Silver at Penang Robotics Competition and will represent the state for national level.
- SJK(T) Ringlet won Third Prize and Best Innovation Award at National Robotic Competition Pahang Zone. SJK(T) Ringlet also won Excellence Award and Best Mentor Award at National Robotic Competition Pahang zone.
- SJK(T) Kangkar Pulai won 2 Gold medals and best commercialization award in UiTM Competition.
- International Young Inventors Award 2016(IYIA 2016) - SJK(T) Buloh Akar, SJK(T) Kajang and SJK(T) Mentakab participated in the 3rd International Young Inventors Award 2016 (IYIA 2016) held in Surabaya, Indonesia. SJK(T) Buloh Akar won gold medal and Special Award at IYIA 2016. SJK(T) Kajang won Silver medal at the event. Meanwhile SJK(T) Mentakab won bronze medal at IYIA 2016.
- Invention, Innovation & Design Exposition 2016 - SJK(T) Ladang Bee Yong and SJK(T) Blue Valley won Gold; SJK(T) Mentakab, SJK(T) Ringlet, SJK(T) Kangkar Pulai and SJK(T) Raub won Silver; SJK(T) Mentakab, SJK(T) Raub, SJK(T) Jalan Yahya Awal and SJK(T) Nibong Tebal won Bronze.
- INVENTIONS - BELGRADE 2016 - SJK(T) Sungai Ara from Pinang and SJK(T) Tun Aminah from Johor represented ASTI and participated in a prestigious invention competition in Europe called INVENTIONS - BELGRADE 2016. One school won silver medal in this competition, the other honorary mention.
- Kuala Lumpur Engineering Science Fair - This year many SFYC Schools participated in Kuala Lumpur Engineering Science Fair. They were SJK(T) Jalan Yahya Awal (9 teams), SJK(T) Rama krishnan (2 teams), SJK(T) Blue Valley (1 team), SJK(T) Raub (4 teams), SJK(T) Sungai Ara (1 team), SJK(T) Mount Austin (2 teams), SJK(T) Kinrara (1 team) and SJK(T) Pasir Gudang (2 teams). More than 120 teams including international schools in primary category participated in the fair. Two gold, 4 silver and 6 bronze were awarded. SJK(T) Ramakrishna won a gold and a bronze, SJK(T) Jalan Yahya Awal won a silver and a bronze and SJK(T) Pasir Gudang won a Silver. Another bronze medal was won by SJK(T) Raub.
- Raja Zarith Sofiah Wildlife Program 2016 - SJK(T) Taman Tun Aminah won second place for T-Shirt Design - Primary School, SJK(T) Taman Tun Aminah won third place for Scrap Book - Primary School and SJK(T) Taman Tun Aminah won second place for Overall - Primary School.

The project also received wide coverage in newspapers such as The Malaysia Nanban, Tamil Nesan, Makkal Osai, Tamil Malar, Thinakural, Thaimoli, The News Straits Times, The STAR, Berita Harian and Bernama for the School Level and Zone Level trainings, Zone Level Science Fair and pre and post National Event.

சார்பு மாறி

நர்க்கப்பட்ட காகித
செருகிய...





8 Funding

The total cost for the event was estimated to be RM675,967.25 to which ASTI Committee had committed.

The Science Fair for Young Children 2016, together with others, were principally supported and funded by various NGOs and corporations such as SEDIC, Edge Foundation, NLFCS and MyNadi Foundation. The summary of Funding for the Science Fair for Young Children 2016 is stated below:

No	Sponsor	Amount (RM)
1	SEDIC	556,432
2	MYNADI	100,000
3	Edge Foundation	60,000
4	NLFCS	20,000
Total		736,432

Table 8.1: Summary of Funding for the Science Fair for Young Children 2016

We also believe that this kind of contribution produced a win situation for both the organisers and the sponsors by providing good publicity and a direct promotion avenue for the company's products to our participants, aged between 10-12 years old, teachers, and parents as well as to the general public who visited the fair.

In return for their generosity in cash or in-kind all corporate sponsors had their company logo included in the SFYC 2016 promotional material such as the programme book.



Judging

The Judges Panel is an independent group of qualified individuals who are responsible for the evaluation of the students' research, experiments, exhibits and for compliance with the rules and regulations throughout the SFYC. These judges were selected based on their educational background, occupational background and knowledge of science. Therefore, most of the judges selected were individuals with science degrees. From this core group of judges, separate ZLSF Judges Panel and NSFYC Judges Panel were set up to judge the students' performance based on the specific categories and requirements for each event. The respective Judging Panel's decisions were final and independent from the organizing committee. Each zone level Judge was headed by a zone level Chief Judge.

9.1 Zone Level Chief Judges Training

The Judges Panel was responsible for synchronizing the judging criteria and methodology in all the zones. Chief Judges were selected for each zone to make the process more efficient. The Zone Chief Judges list is as stated below:

Zone	State	Chief Judges
1	Kedah and Perlis	Mr. Saravanan Manian
2	Penang	Mr. Saravanan Manian
3	Perak	Mr. Sathiakumaran Krishnan
4 & 5	Selangor and Kuala Lumpur, W.P.	Dr. Subramaniam Gurusamy & Mr. Suresh Ramasamy
6	Negeri Sembilan	Mr. Rajeswara Rao A/L Apparow
7	Melaka	Mr. Vigneswara Rao Gannapathy
8	Johor	Mr. Suresh Ramasamy
9	Pahang and Kelantan	Mr. Prem Kumar Apasamy

Table 9.1: Zone Chief Judges

The Chief Judges meeting was held on 9th January 2016 to brainstorm the following aspects:

- discuss the overall judging criteria and process.
- discuss the methods and training materials required for the training of Zone Level/State Level Judges.
- finalize criteria to select the Zone Level/State Level Judges.
- discuss the scope for the non-guided experiments developed for the Zone Level Science Fair.
- finalize the 20 non-guided experiments for the Zone Level Science Fair.
- prepare training materials such as presentation slides, worksheets, handouts and illustrations.
- conduct workshop sessions to ensure the core judging panel was well-equipped with the “experimental” and theoretical knowledge of all the experiments presented by the students.

9.2 Zone Level Judges Training

The Chief Judges of each zone were assigned to conduct training for the judges in their team. All the Zone Chief Judges conducted the training in their respective zone one week before the actual Zone Level Science Fair. The details of the judges training are as follows:

Zone	Date	Venue	Trainer
Kedah	5 Mar 2016	PPD Kuala Muda Yen Sungai Petani	Mr. Saravanan & Mr. Sadish Kumar
Penang	5 Mar 2016	USM, Dewan Pembangunan Siswa 1, Kompelks Cahaya	Mr. Jimmy Nelson & Mr. Sri Jeyanthirar
Perak	27 Feb 2016	UPSI, Tanjung Malim	Mr. Sathia & Ms. Kalai
	28 Feb 2016	SJKT Kerajaan, Ipoh	Mr. Saravanan & Ms. Kalai
	5 Mar 2016	SJKT ST. Theresa's Convent, Taiping	Mr. Selventhiran & Ms. Kalai
Wilayah & Selangor	27 Feb 2016	BAC College, Petaling Jaya	Dr. Subramaniam & Ms. Vanitha
Negeri Sembilan	12 March 2016	SJKT Convent	Major Dr. Vikneswaran
Melaka	5 Mar 2016	SJKT Durian Tunggal	Mr. Vikneswara Rao, Mr. Selvendran, Mr. Mathiyalagan
Johor	27 Feb 2016	UTHM Batu Pahat	Mr. Manimaran & Mr. Sukan
Pahang	27 Feb 2016	SJKT Mentakab	Mr. Pream, Mr. Selvendran, Ms. Umah & Mr. Muthu

Table 9.2: Zone Level Judges Training



9.3 National Science Fair for Young Children

9.3.1 Scientific Paper Presentation

The Scientific Paper Presentation was previously known as Research Paper/Conference Paper. The concept of the Scientific Paper Presentation is different from last year. Last year students have to write about the research conducted for their respective science project. This year for the Scientific Paper Presentation, students have to submit their written papers and also present their paper. The Scientific Paper Presentation is prepared in a standardised format.

All the schools that were selected for the final event were eligible to participate in the Scientific Paper Presentation category. The teams have to submit a 4-page paper of their experiment and findings. This year, 52 teams submitted their Scientific Paper Presentation. From these 52 teams, 5 teams were selected and they had to do their presentation. Out of these 5 teams, 3 teams were selected as winners for this category. A special team of judges that was formed reviewed and marked the papers. The marking was done by the judges a week before the event.

The objectives of the Scientific Paper Presentation are as follows:

- To cultivate the concept of research findings and sharing them with the other participants of the Fair in an academic manner.
- To provide an opportunity to write the research findings in an organised and systematic manner.
- The guidelines for the Scientific Paper Presentation are as follows-
- The Scientific Paper Presentation is open to all the selected 60 schools (From Zone Level competition).
- The Scientific Paper Presentation should be written based on the experiment conducted at the Zone Level Science Fair for Young Children.
- The Scientific Paper Presentation can be in either Tamil or English.
- The school is required to submit the Scientific Paper Presentation first and the 5 schools that are shortlisted will have to do power point presentation.
- Central committee will select the best Scientific Paper Presentation submitted by the school.
- The Paper should be written following the format given in template.
 - Font size: 12 point, Font Type: Times New Roman, Spacing: single spacing
- The Paper should not exceed the four (4) pages maximum.





9.3.2 Event Day Judging

Judges started to arrive as early as 7.00 am for the Judges Briefing. Breakfast was served to the judges as they were arriving. Briefing started at 8.00 am and was conducted by Mr. Suresh Ramasamy. He started by introducing all the Zone Chief Judges to all the other judges.

Next, he briefed all the judges on the Judging Methodology for Booth Judging as a few changes were made to the marking criteria. After that, he announced the group leaders assigned for each group. Group leaders were chosen after having discussion with all the Zone Chief Judges. A total of 9 groups were formed with 2 teams in each group. Each team had a leader with two judges. Judges from all zones were mixed up in their respective groups. Judges were then asked to prepare questions that will be asked to the contestants later at the booths.

Judges were brought to the judging venue later. All the judges were asked to observe all the booths first before going to their allocated booths. This was to give them an overall big picture of the booths at the event. The judges were assisted by one facilitator from the organizing event committee. The estimated time allocated for judging was 20 minutes per school; 15 minutes for Booth Judging and 5 minutes for question and answers. All the scores were then tabulated and combined for submission to the Zone Chief Judges for finalizing.

The Chief Judges did the final evaluation on the marking. To ensure fairness, in the second round of judging, the selected teams had a different panel of judges to assess their booth. This year, all Zone Chief Judges were involved in the second round judging, with 3 Chief Judges assessing for the placing of 1st to 6th position and 3 other Chief Judges assessing for the placing of 7th to 10th position. The winning school names were then submitted to the Secretariat at the closing ceremony.

A few judges were tasked with marking for the Innovation Category. Innovation Category stands for the development of a new concept or a variation of an existing idea by students using innovative methods or devices for their experiments. All team leaders were asked to identify the schools in their group that showed innovativeness in their projects. These schools were then assessed by the judges chosen for this category. A total of 3 judges were appointed for this task. This judging was done after the main judging process. Judges did the marking by asking simple questions as well as observing the students' presentation and confidence. The judges then assessed and submitted the scores to the Zone Chief Judges for the Innovation Category.

To round off the day of judging, after finalising the marks, Mr. Saravanan Maniam thanked all the judges who had shown professionalism and commitment to ensure that all the booths were judged fairly and accurately and all the students' work was treated with respect.

All the judges were acknowledged by the Organising Committee and were given certificates and a souvenir as a token of appreciation for their time and support.

A post-mortem was immediately held on the judging process for the entire programme (all levels - school, zone and national). The main finding was that SFYC judging process is more rigorous than many other international competitions. However, in the interest of more improvements, some of the recommendations are below:

RECOMMENDATIONS FOR THE FUTURE (Judging)

- For 2nd round judging, time is limited to 5 minutes for each participating team to present their experiment in a simplified manner and another 5 minutes is allocated for Q & A session in order to get a faster result next year
- A team of photographers for the judging committee to take pictures or video shot of all the display of each participating team in orderly manner for further reference of the judges. Move video shooting for demo and presentation earlier.
- Transformation allowance provided to judges who are travelling from northern and southern region if affordable.
- Have a judge's appreciation event to recognize the judges throughout Malaysia.

1. LOG BOOK

- **for zone level participants**, a lot of improvement needs to be done by schools; briefing on the requirements of a log book was already given to schools during the teacher's training workshop but many aspects were seen missing in the log books.
- **for national level participants**, participating schools had made well preparation for their log book; only 10 out of 60 (17 %) participating schools managed to get full 15 marks for their log book
- **overall**, log books still lack the following details:
 1. Suggestions and recommendations for their experiment
 2. Method of writing the procedure for the experiment conducted not in passive and past tense sentences
 3. Does not give the impression that genuine work has been carried out by the students
 4. Results were not well interpreted and discussed



2. REPORT BOOK

- **for zone level participants**, presentation can be improved further; briefing on the contents of a report book was already given to all the school teachers during the teacher's training session held in all zones
- **for national level participants**, overall presentation was good; 1 out of 60 (2%) participating schools managed to get full 40 marks for their report book
- **overall**, report books still lack the following aspects:
 1. Interpretation and discussion of results were not very well done
 2. 2nd hypothesis was not well explained in their report book
 3. The conclusion made was not very relevant with the hypothesis investigated and the results obtained from the experiment
 4. Introduction of the experiment was not clearly done; most schools introduced their school and the team members in this section
 5. Scientific principles involved in the experiment chosen was not identified and explained its relevance to the experiment conducted; this greatly affected the student's performance during demo and presentation and during the Q & A session
 6. Steps taken as the procedure of the experiment was not well established in passive and past tense sentences

3. DISPLAY, DEMO AND PRESENTATION

- **for zone level participants**, a lot of improvements is needed; some schools came very well prepared but most schools came with just enough preparation for a simple presentation; a lot of motivation and energy required from organizing team to request schools for a better presentation.
- **for national level participants**, overall presenting skills and demonstration of the experiments by students were excellent; Students able to grasped the experiment title well and were able to explain the scientific principles used in their experiment. No schools managed to score full marks for any of the 3 aspects
- overall,
 1. students were all very confident when it came to presenting and demonstrating their experiments
 2. display was well organized and arranged
 3. lack in the understanding of the scientific principles and concepts involved in their experiment among some of the students; this made them cannot relate the experiment with other things (cannot think out of the box). Only for some schools
 4. most of the titles has a lot of opportunities for innovation; many schools created something new and claimed it as their innovation; these creations did not help the teams to improvise their methodology in executing their experiment in a simplified manner to get better results than the conventional methods used. However, some schools did well in innovating the experiment.

4. HANDS ON EXPERIMENS

- **overall**, the title given for the hands on experiment were very simple and all that was needed from the students, was to complete the experiment and answer the given questions within 1 ½ hours. The idea was to test their knowledge and fundamental skills in performing the experiments. Some schools did very well, but there are still room for improvement. Efforts can be made to ensure students understand the basic fundamental principle to conduct the experiment.

5. SCIENTIFIC PAPER

- **overall**, a total of 52 schools submitted their Scientific Papers and 5 schools have been selected for the presentation. We saw very high quality scientific papers presented by these schools. These ensures that the students have developed the required skills associated with Journal paper preparation. Though mistakes were made, I am sure it can be improved in future participations.

6. JUDGES

- **STRENGTH**
 1. talented & experienced judges, had previous exposure in Science Fair as zone level judges
 2. experts in their field, all judges were with science background
 3. judges were a mixture of teachers, lecturers, engineers, doctors etc
 4. committed judges
 5. focused on the facts, concepts and the scientific principles involved in the experiments
- **CONSTRAINTS**
 1. Lack of time during cross judging process
 2. Tired and exhausted
- **OPPORTUNITY**
 1. a good pool of judges in the country
 2. judges come from all over the country
 3. many volunteers
- **THREAT**
 1. easily influenced by the “impressed” factor;





Statement of Accounts SFYC 2016

Income Statement for the Project Period ended 30 October 2016

Income	Amount (RM)
SEDIC	556,432.00
MyNadi	100,000.00
Edge Foundation	60,000.00
NLFCS	20,000.00
TOTAL INCOME	736,432.00
Less: Expenditure DEVELOPMENT & TRAINING:	
Material Layout	6,000.00
Folder Softcopy DVD Duplication	2,067.00
Judges Brainstorm & Training Session	7,650.00
Coordinator Conference(2 Days)	4,336.60
Coordinator Interim Meeting	500.00
Experiment Development	2,000.00
Teachers Training for 9 Zone	13,500.00
Research & Development (R&D)	10,000.00
Evaluation For 2015	5,500.00
Total	51,553.60
SCHOOL LEVEL FAIRS:	
School Level Seed Funding	138,600.00
Road Shows In Each Zone	13,500.00
Printing Material	6,248.00
SLSF Soft Launching	4,336.60
Total	162,684.60
STATE/ ZONE LEVEL FAIRS:	
State Level Science Fair Seed Funding	90,300.00
State Coordinator Allowance	8,000.00
Total	98,300.00

Income	Amount (RM)
NATIONAL SCIENCE FAIR:	
Hands on Experiments & Judging Department	8,000.00
Events Department	6,430.20
National Science Fair Venue	24,467.00
Exhibition Booths	25,776.00
Prizes & Souvenirs	66,700.00
Insurance(For Students &Volunteers)	3,094.00
Accommodation(Students& Volunteers)	18,010.00
Meals (Students & Volunteers)	30,235.00
Audio / Visual Rental	3,910.00
Bus Rental(State-Accom. & venue)	9,125.00
Printing & Promotion	19,600.00
Postmortem & Appreciation Lunch	4,000.00
Transportation(Every Day)	2,740.00
Total	RM 222,087.20
ADMIN & OTHER EXPENSES:	
Project Manager	51,480.00
Project Manager Benefit	7,849.40
Assistant Project Officer (50% of man Days)	12,800.00
Project Directors Allowance	24,000.00
Miscellaneous Expenses	4,000.00
Website Maintenance	4,200.00
Total	104,329.40
Total Expenditure	638,954.80
INCOME AND EXPENDITURE ACCOUNT	
Total Income	736,432.00
Total Expenditure	638,954.80
(Deficit) /Surplus	97,477.20



0.70mm 0.90mm

SAFETY PRECAUTION FOR SPRING VIBRATION EXPERIMENT
RESPONDING VARIABLE

- 1) Measure the time taken for 5 spring vibration
- 2) We use sensor to get accurate data rather than counting it
- 3) We switch on the stopwatch once spring release
- 4) We use digital timer to count the vibration of spring
- 5) Convert the period obtained to get frequency of spring vibration

APPARATUS & MATERIALS
Digital Stopwatch, Spring, etc.

APPARATUS AND MATERIALS

Spring	0.70mm	
	0.80mm	
	0.90mm	
Leaf	100g	
Mass	1	

SENSOR

Emergency Contacts :-
Mr. Selvendran
Phone No: 019 918 5678
Mr. Sathya Kumar
Phone No: 016 6932 986
Ms. M. Umahankarath
012 627 9562
Ms. V. Vanitha
014 930 2870

Emergency Contacts :-
Mr. Selvendran
Phone No: 019 918 5678
Mr. Sathya Kumar
Phone No: 016 6932 986
Ms. M. Umahankarath
012 627 9562
Ms. V. Vanitha
014 930 2870



Recommendations for the Future

Here are some recommendations that were suggested during the Coordinators and Working Group Committee postmortem SWOT analysis for the future improvement of SFYC.

11.1 Working Group Committee

- Improve the WGC attendance for the meeting
- Strongly encourage to explore more funding to sustain the project
- Coordinator strongly encourage to improve the reporting system
- Get Committed organisation to organise the SFYC
- Conduct early brainstorming among organisation, coordinator, PST & MGB

11.2 School Level Science Fair

- Coordinator strongly encourage to improve to collect report from the school
- Strongly encourage to provide medals to the students with books
- Deliver the prizes to the schools according to the time line

11.3 Zone Level Science Fair

- Coordinator are strongly encourage to follow the SOP of the ZLSF
- Standardise the Prizes and the design of backdrop
- Organised the ZLSF event within the time period stated
- Increase the Seed Fund of ZLSF

11.4 National Level Science Fair

- Organise opening ceremony agenda early
- Strongly encourage to not set up crump agenda for the kids

11.5 Training

- Encourage to invite only in-charge teachers of SFYC for the Training
- Upload or provide the experiments title before the training

11.6 Event Committee

- Provided better accommodation to the Volunteers
- Set enough time to rest before the next day event
- Encourage to prepare the walkie talkie for Head of The Departments

12 Conclusion

A total of 308 schools successfully participated in School Level Science Fairs. Meanwhile, 258 schools took part in Zone Level Science Fairs held in 9 zones nationwide. The National Level event took place on 16th July 2016 and 17th July 2016 at German Malaysian Institute, Bangi. Our survey results show positive response from all stakeholders.





APPENDIX A

Zone Level Science Fair Participation List

Zone 1: Kedah

No	Name of School	Title
1	SJK(T) Ladang Wellesley	Vegetable Oils
2	SJK(T) Ladang Sungai Ular	Roller Coaster
3	SJK(T) Ladang Perbadanan Kedah	Solar Cell
4	SJK(T) Somasundram / Sungai Tukang	Magnets Paper Speaker
5	SJK(T) Hentraita	Balloon-Powered Car
6	SJK(T) Bedong	Power of Water
7	SJK(T) Saraswathy	Metal Ions
8	SJK(T) Binjol	Magnets Paper Speaker
9	SJK(T) Ladang Bukit Mertajam	Radiometer's Rotation Speed
10	SJK(T) Palanisamy Kumaran	Strength of Magnets
11	SJK(T) Somme	Gear
12	SJK(T) Mahajothi (Integ)	Saturated Fat in cooking oils
13	SJK(T) Ganesar	Loudness of paper speaker
14	SJK(T) Ladang Batu Pekaka	Ballon powered car
15	SJK(T) Jalan Paya Besar	Boat's propeller
16	SJK(T) Padang Meiha	Radiometer rotation speed
17	SJK(T) Barathy	Power of water
18	SJK(T) Ladang Harvard Bhg 3	Saturated Fat in cooking oils
19	SJK(T) Ladang Lubok Segintah	Power of water
20	SJK(T) Thiruvalluvar	Boat's propeller
21	SJK(T) Ladang Bukit Jenun	Saponification
22	SJK(T) Ladang Katumba	Boat's propeller
23	SJK(T) Kulim	Boat's propeller
24	SJK(T) Ladang Bagan Sena	Saturated Fat in cooking oils
25	SJK(T) Ladang Bukit Sembilan	Biodiesel
26	SJK(T) Kalaivaani	Strenght of Magnets
27	SJK(T) Ladang Pelam	Loudness of paper speaker
28	SJK(T) Ladang Scarboro Bhg 2	Solar Cell
29	SJK(T) Sungai Tok Pawang	UV radiation
30	SJK(T) Ladang Malakoff	Biodiesel
31	SJK(T) Ladang Sungai Puntar	Strenght of Magnets
32	SJK(T) Tun Sambanthan	Spring vibration frequency
33	SJK(T) Ladang Jabi	Strenght of Magnets
34	SJK(T) Ladang Kupang	Guitar string vibration frequency
35	SJK(T) Ladang Tupah	Strenght of Magnets
36	SJK(T) Harvard Bhg I	Solar Cell

No	Name of School	Title
37	SJK(T) Kangar	Travel Speed Versus Temperature
38	SJK(T) Darul Aman	Static Electricity
39	SJK(T) Ladang Kuala Muda Bhg Home	Energy
40	SJK(T) Ladang Bukit Selarong	Saponification
41	SJK(T) Sungai Getah	Static Electricity
42	SJK(T) Ladang Kuala Ketil	Ballon powered car
43	SJK(T) Ladang Sungai Dingin	Ballon powered car
44	SJK(T) Changlun	Ballon powered car
45	SJK(T) Ladang Sungkap Para	Spring vibration frequency
46	SJK(T) Ladang Sungai Raya	UV radiation
47	SJK(T) Kalaimagal	Guitar string vibration frequency

Zone 2: Penang

No	Name of School	Title
1	SJK(T) Sungai Ara	Sunscreen Products
2	SJK(T) Ladang Alma	Balloon-Powered Car
3	SJK(T) Ramakrishna	Materials Produce The Static Electricity
4	SJK(T) Permata Tinggi	Boat's Propeller
5	SJK(T) Ladang Prye	Gear
6	SJK(T) Jalan Sungai	Strength of Magnets
7	SJK(T) Rajaji	Soap
8	SJK(T) Subramanya Barathee	Balloon-Powered Car
9	SJK(T) Bayan Lepas	Soap
10	SJK(T) Perai	Power of Water
11	SJK(T) Bukit Mertajam	Roller Coaster
12	SJK(T) Ladang Krian	Gear
13	SJK(T) Ladang Transkrian	Boat's Propeller
14	SJK(T) Nibong Tebal	Metal Ions

Zone 3: Perak

No	Name of School	Title
1	SJK(T) Ladang Bidor Tahan	Roller Coaster
2	SJK(T) Rubana	Power of Water
3	SJK(T) Slim River	Strength of Magnets
4	SJK(T) Ladang Sungkai	Cooking Oils
5	SJK(T) Trolak	Cooking Oils
6	SJK(T) Tan Sri Dato Manickavasagam	Soap
7	SJK(T) Ladang Kelapa Bali	Weight of Load
8	SJK(T) Barathi	Boat's Propeller
9	SJK(T) Ladang Jenderata Bahagian 3	Balloon-Powered Car
10	SJK(T) Bagan Datoh	Guitar's String Vibration
11	SJK(T) Ladang Kamatchy	Cooking Oils
12	SJK(T) Changkat	Guitar's String Vibration
13	SJK(T) Kampar	Balloon-Powered Car
14	SJK(T) Ladang Buluh Akar	Boat's Propeller
15	SJK(T) St. Teresa	Sound Travels
16	SJK(T) Kampong Baru Batu Matang	Strength of Magnets
17	SJK(T) Kamunting	Power of Water
18	SJK(T) Mahatma Ghandi Kalasalai	Magnets Paper Speaker
19	SJK(T) Ladang Changkat Salak	Solar Cell
20	SJK(T) Ladang Sin Wah	Materials Produce The Static Electricity
21	SJK(T) Gandhi Memorial	Soap
22	SJK(T) Ladang Sungai Biong	Balloon-Powered Car
23	SJK(T) Ladang Gapis	Vegetable Oils
24	SJK(T) Dovenby	Sun Screen Product
25	SJK(T) Kerajaan	Soap
26	SJK(T) Perak Sangeetha Sabah	Gear
27	SJK(T) Kampung Simee	Guitar's String Vibration
28	SJK(T) Menglembu	Battery's Voltage
29	SJK(T) Taman Desa Pinji	Roller Coaster
30	SJK(T) Ladang Matang	Strength of Magnets
31	SJK(T) Ladang Yam Seng	Sound Travels
32	SJK(T) Simpang Lima	Gear
33	SJK(T) Bagan Serai	Roller Coaster
34	SJK(T) Ladang Soon Lee	Boat's Propeller
35	SJK(T) Saint Mary's	Cooking Oils
36	SJK(T) Maha Ganesa Vidyasalai	Cooking Oils
37	SJK(T) Pangkor	Materials Produce The Static Electricity
38	SJK(T) Ladang Klabang	Weight of Load



Zone 4: Selangor

No	Name of School	Title
1	SJK(T) Taman Permata	Boat's Propeller
2	SJK(T) Castlefield	Boat's Propeller
3	SJK(T) Vageesar	Balloon-Powered Car
4	SJK(T) Ladang Kinrara	Metal Ions
5	SJK(T) Methodist Kapar	Cooking Oils
6	SJK(T) Ladang Sg Choh	Solar Cell
7	SJK(T) Ladang Highlands	Sound Travels
8	SJK(T) Sungai Rengam	Power of Water
9	SJK(T) Ladang Midlands	Magnets Paper Speaker
10	SJK(T) Rawang	Solar Cell
11	SJK(T) Dengkil	Cooking Oils
12	SJK(T) Ladang Batu Ampat	Magnets Paper Speaker
13	SJK(T) Persiaran Raja Muda Musa	Balloon-Powered Car
14	SJK(T) Kuala Kubu Baru	Soap
15	SJK(T) Ladang Semenyih	Cooking Oils
16	SJK(T) Sepang	Gear
17	SJK(T) Bandar Baru Salak Tinggi	Balloon-Powered Car
18	SJK(T) Tun Sambanthan	Materials Produce The Static Electricity
19	SJK(T) Hicom	Power of Water
20	SJK(T) Rri Sungai Buloh	Cooking Oils
21	SJK(T) Ladang Vallambrosa	Balloon-Powered Car
22	SJK(T) Bestari Jaya	Power of Water
23	SJK(T) Ladang Ampar Tenang	Guitar's String Vibration
24	SJK(T) Telok Merbau	Strength of Magnets
25	SJK(T) Bukit Beruntung	Gear
26	SJK(T) Ladang Kerling	Soap
27	SJK(T) Batu Arang	Materials Produce The Static Electricity
28	SJK(T) Ebor	Metal Ions
29	SJK(T) Ladang Bukit Cheraka	Materials Produce The Static Electricity
30	SJK(T) Seaport	Strength of Magnets
31	SJK(T) Effingham	Materials Produce The Static Electricity

Zone 5: Kuala Lumpur

No	Name of School	Title
1	SJK(T) Sentul	Boat's Propeller
2	SJK(T) Vivekananda	Boat's Propeller
3	SJK(T) Kampung Pandan	Boat's Propeller
4	SJK(T) Thamboosamy Pillai	Strength of Magnets
5	SJK(T) Segambut	Strength of Magnets
6	SJK(T) Jalan Cheras	Balloon-Powered Car
7	SJK(T) Ladang Bukit Jalil	Spring
8	SJK(T) Sungai Besi	Balloon-Powered Car
9	SJK(T) Appar	Cooking Oils
10	SJK(T) St. Joseph	Soap
11	SJK(T) Ladang Edinburgh	Cooking Oils
12	SJK(T) Bangsar	Guitar's String Vibration



Zone 6: Negeri Sembilan

No	Name of School	Title
1	SJK(T) Nilai	Power Of Water
2	SJK(T) Lobak	Balloon-Powered Car
3	SJK(T) Ladang Senawang	Boat's Propeller
4	SJK(T) Ladang Batu Hampar	Strength Of Magnets
5	SJK(T) Lorong Jawa	Solar Cell
6	SJK(T) Ladang Pertang	Soap
7	SJK(T) Ladang St Helier	Boat's Propeller
8	SJK(T) Kubang	Guitar's String Vibration
9	SJK(T) Convent	Magnets Paper Speaker
10	SJK(T) Ladang Bradwall	Roller Coaster
11	SJK(T) Desa Cempaka	Boat's Propeller
12	SJK(T) Spring Hill	Gear
13	SJK(T) Kirby	Balloon-Powered Car
14	SJK(T) Ladang Sagga	Balloon-Powered Car
15	SJK(T) Ladang Air Hitam	Balloon-Powered Car
16	SJK(T) Ladang Seremban	Gear
17	SJK(T) Cairo	Balloon-Powered Car
18	SJK(T) Ladang Gaddes	Soap
19	SJK(T) Tampin Linggi	Spring
20	SJK(T) Air Kuning Selatan	Guitar's String Vibration
21	SJK(T) Ladang Sengkang	Soap
22	SJK(T) Ladang St Leonards	Sound Travels
23	SJK(T) Ladang Perhentian Tinggi	Vegetable Oils
24	SJK(T) Tampin	Balloon-Powered Car
25	SJK(T) Tun Sambantan	Guitar's String Vibration
26	SJK(T) Ladang Middleton	Sound Travels
27	SJK(T) Ladang Siliau	Roller Coaster
28	SJK(T) Chembong	Power of Water
29	SJK(T) Mukundan	Strength of Magnets

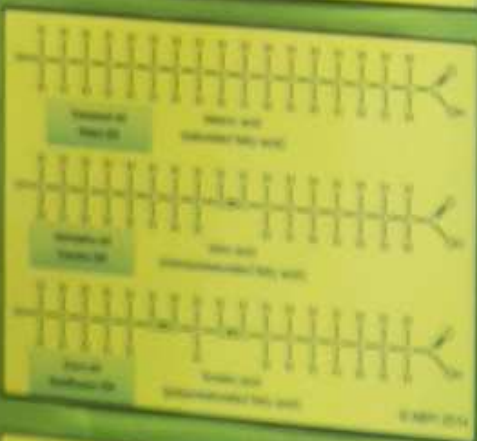
Zone 7: Melaka

No	Name of School	Title
1	SJK(T) Pulau Sebang	Power of Water
2	SJK(T) Merlimau	Strength of Magnets
3	SJK(T) Alor Gajah	Balloon-Powered Car
4	SJK(T) Jasin	Guitar's String Vibration
5	SJK(T) Ladang Bukit Asahan	Balloon-Powered Car
6	SJK(T) Batang Melaka	Cooking Oils
7	SJK(T) Ladang Tebong	Spring
8	SJK(T) Ladang Sungai Baru	Balloon-Powered Car
9	SJK(T) Melaka Kubu	Strength of Magnets
10	SJK(T) Ldg Jasin Lalang	Boat's Propeller
11	SJK(T) Bukit Lintang	Spring
12	SJK(T) Durian Tunggal	Boat's Propeller
13	SJK(T) Pekan Tebong	Materials Produce The Static Electricity
14	SJK(T) Ldg Diamond Jubilee	Strength of Magnets
15	SJK(T) Ladang Gadek	Cooking Oils
16	SJK(T) Ladang Kemuning Kru	Soap
17	SJK(T) Ladang Serkam	Guitar's String Vibration
18	SJK(T) Ladang Bukit Kajang	Materials Produce The Static Electricity
19	SJK(T) Paya Rumput	Guitar's String Vibration





11th
Young Scientist
Competition
2023



• Samples of samples of 50% of monosubstituted fatty acids with 10 carbon atoms with one double bond. It is more difficult for the double bond to break and release maximum amount of energy.

• Samples of samples of 50% of monosubstituted fatty acids with 10 carbon atoms with one double bond.

• Samples of samples of 50% of monosubstituted fatty acids with 10 carbon atoms with 2 double bonds. This is more difficult to break and release the amount of energy.

Zone 8: Johor

No	Name of School	Title
1	SJK(T) Yahya Awal	Balloon-Powered Car
2	SJK(T) Kulai Besar	Power of Water
3	SJK(T) Jalan Khalidi	Roller Coaster
4	SJK(T) Jalan Sialang	Gear
5	SJK(T) Desa Cemerlang	Roller Coaster
6	SJK(T) Taman Tun Aminah	Metal Ions
7	SJK(T) Permas Jaya	Materials Produce The Static Electricity
8	SJK(T) Masai	Soap
9	SJK(T) Kangkar Pulai	Spring's Vibration Frequency
10	SJK(T) Lanadron	Magnets Paper Speaker
11	SJK(T) Kulai Oil Palm	Roller Coaster
12	SJK(T) Haji Manan	Strength of Magnets
13	SJK(T) Ladang Tangkah	Balloon-Powered Car
14	SJK(T) Station Paloh	Soap
15	SJK(T) Ladang Rini	Gear
16	SJK(T) Ladang Lambak	Balloon-Powered Car
17	SJK(T) Pasir Gudang	Metal Ions
18	SJK(T) Mersing	Solar Cell
19	SJK(T) Ladang Rem	Cooking Oil
20	SJK(T) Cantuman Chaah	Cooking Oil
21	SJK(T) Mount Austin	Strength of Magnets
22	SJK(T) Pasak	Spring
23	SJK(T) Ladang Bekoh Tangkak	Cooking Oil
24	SJK(T) Ulu Remis	Guitar's String Vibration
25	SJK(T) Jalan Tajul	Roller Coaster
26	SJK(T) Bukit Renggam	Weight of Load
27	SJK(T) Ulu Tiram	Weight of Load
28	SJK(T) Fotrose	Strength of Magnets
29	SJK(T) Gelang Patah	Soap
30	SJK(T) Ladang Pelepah	Vegetable Oils
31	SJK(T) Ladang Tebrau	Battery's Voltage
32	SJK(T) Seri Pelangi	Balloon-Powered Car
33	SJK(T) Labis	Balloon-Powered Car
34	SJK(T) Parit Ibrahim	Balloon-Powered Car
35	SJK(T) Kahang Batu 24	Strength of Magnets
36	SJK(T) Sungai Plentong	Guitar's String Vibration
37	SJK(T) Batu Anam	Roller Coaster
38	SJK(T) Simpang Renggam	Strength of Magnets

Zone 9: Pahang

No	Name of School	Title
1	SJK(T) Ladang Bee Yong	Vegetable Oils
2	SJK(T) Karak	Strength Of Magnets
3	SJK(T) Mentakab	Cooking Oil
4	SJK(T) Ladang Edensor	Vegetable Oils
5	SJK(T) Raub	Gear
6	SJK(T) Ringlet	Soap
7	SJK(T) Blue Valley	Sunscreen Products
8	SJK(T) Ladang Lanchang	Soap
9	SJK(T) Tanah Rata	Gear
10	SJK(T) Ladang Sungai.tekal	Cooking Oil
11	SJK(T) Syum Yip Leong	Boat's Propeller
12	SJK(T) Kuala Lipis	Magnets Paper Speaker
13	SJK(T) Bentong	Soap
14	SJK(T) Ladang Lanchang	Soap
15	SJK(T) Ycl	Roller Coaster
16	SJK(T) Ladang Jeram	Roller Coaster
17	SJK(T) Kemayan	Balloon-Powered Car
18	SJK(T) Ladang Menteri	Balloon-Powered Car
19	SJK(T) Kuala Terla	Balloon-Powered Car
20	SJK(T) Kuala Reman	Balloon-Powered Car
21	SJK(T) Jerantut	Strength Of Magnets
22	SJK(T) Sungai Kawang	Strength Of Magnets
23	SJK(T) Ladang Semantan	Materials Produce The Static Electricity
24	SJK(T) Ladang Mentakab	Materials Produce The Static Electricity
25	SJK(T) Lurah Bilut	Magnets Paper Speaker
26	SJK(T) Tanah Rata	Gear
27	SJK(T) Renjok	Cooking Oil
28	SJK(T) Ladang Sungai Tekal	Cooking Oil
29	SJK(T) Indera Mahkota	Solar Cell



APPENDIX B : National Level Science Fair Participation List

No	Name of School	Zone	Title
1	SJK(T) Ladang Wellesley	Kedah	Vegetable oils
2	SJK(T) Ladang Sungai Ular	Kedah	Roller coaster
3	SJK(T) Ladang Perbadanan Kedah	Kedah	Solar cell
4	SJK(T) Somasundram / Sungai Tukang	Kedah	Magnets Paper Speaker
5	SJK(T) Hentraita	Kedah	BalloonPowered Car
6	SJK(T) Bedong	Kedah	Power of Water
7	SJK(T) Saraswathy	Kedah	Metal Ions
8	SJK(T) Binjol	Kedah	Magnets Paper Speaker
9	SJK(T) Ladang Bukit Mertajam	Kedah	Radiometer's Rotation Speed
10	SJK(T) Palanisamy Kumaran	Kedah	Strength Of Magnets
11	SJK(T) Somme	Kedah	Gear
12	SJK(T) Sungai Ara	Penang	Sunscreen Products
13	SJK(T) Ladang Alma	Penang	Balloon-Powered Car
14	SJK(T) Ramakrishna	Penang	Materials Produce The Static Electricity
15	SJK(T) Ladang Bidor Tahan	Perak	Roller Coaster
16	SJK(T) Rubana	Perak	Power Of Water
17	SJK(T) Slim River	Perak	Strength Of Magnets
18	SJK(T) St. Teresa's Convent	Perak	Sound Travels
19	SJK(T) Kampong Baru Batu Matang	Perak	Strength Of Magnets
20	SJK(T) Kamunting	Perak	Power Of Water
21	SJK(T) Mahatma Ghandi Kalasalai	Perak	Magnets Paper Speaker
22	SJK(T) Ladang Changkat Salak	Perak	Solar Cell
23	SJK(T) Ladang Sin Wah	Perak	Materials Produce The Static Electricity
24	SJK(T) Sentul	Wilayah Persekutuan	Boat's Propeller
25	SJK(T) Vivekananda, Brickfields	Wilayah Persekutuan	Boat's Propeller
26	SJK(T) Kampong Pandan, KL	Wilayah Persekutuan	Boat's Propeller
27	SJK(T) Taman Permata	Selangor	Boat's Propeller
28	SJK(T) Castlefield	Selangor	Boat's Propeller
29	SJK(T) Vageesar	Selangor	Balloon-Powered Car
30	SJK(T) Kinrara	Selangor	Metal Ions

No	Name of School	Zone	Title
31	SJK(T) Methodist, Kapar	Selangor	Cooking Oil
32	SJK(T) Ladang Sungai Choh	Selangor	Solar Cell
33	SJK(T) Ladang Highlands	Selangor	Sound Travels
34	SJK(T) Nilai	Negeri Sembilan	Power of Water
35	SJK(T) Lobak	Negeri Sembilan	Balloon-Powered Car
36	SJK(T) Ladang Senawang	Negeri Sembilan	Boat's Propeller
37	SJK(T) Ladang Batu Hampar	Negeri Sembilan	Strength of Magnets
38	SJK(T) Lorong Jawa	Negeri Sembilan	Solar Cell
39	SJK(T) Ladang Pertang	Negeri Sembilan	Soap
40	SJK(T) Ladang St Helier	Negeri Sembilan	Boat's Propeller
41	SJK(T) Pulau Sebang	Melaka	Power of Water
42	SJK(T) Merlimau	Melaka	Strength of Magnets
43	SJK(T) Alor Gajah	Melaka	Balloon-Powered Car
44	SJK(T) Jasin	Melaka	Guitar's String Vibration
45	SJK(T) Yahya Awal	Johor	Balloon-Powered Car
46	SJK(T) Kulai Besar	Johor	Power of Water
47	SJK(T) Jalan Khalidi	Johor	Roller Coaster
48	SJK(T) Jalan Sialang, Tangkak	Johor	Gear
49	SJK(T) Desa Cemerlang	Johor	Roller Coaster
50	SJK(T) Taman Tun Aminah	Johor	Metal Ions
51	SJK(T) Permas Jaya	Johor	Materials Produce The Static Electricity
52	SJK(T) Masai	Johor	Soap
53	SJK(T) Kangkar Pulai	Johor	Spring's Vibration Frequency
54	SJK(T) Ladang Bee Yong	Pahang	Vegetable Oils
55	SJK(T) Karak	Pahang	Strength Of Magnets
56	SJK(T) Mentakab	Pahang	Cooking Oil
57	SJK(T) Ladang Edensor	Pahang	Vegetable Oils
58	SJK(T) Raub	Pahang	Gear
59	SJK(T) Ringlet	Pahang	Soap
60	SJK(T) Ladang Blue Valley	Pahang	Sunscreen Products

APPENDIX C : Partially Guided Experiments for SFYC 2016

1. How does a light bulb's wattage affect the amount of heat produced? Design an experiment to investigate the query above and explain the concepts involved.
2. Does the mass of a clock's pendulum affect its period? Design an experiment to investigate the query above and explain the concepts involved.
3. Does the type of liquid in a container affect the sound it produces? Design an experiment to investigate the query above and explain the concepts involved.
4. Different food products contain different amount of acid. Design an experiment to investigate the statement above and explain the concepts involved.
5. How does the shape of a boat's hull affect its speed? Design an experiment to investigate the query above and explain the concepts involved.
6. How does water pressure vary with depth? Design an experiment to investigate the query above and explain the concepts involved.
7. How does the design of a solar cooker affect its temperature? Design an experiment to investigate the query above and explain the concepts involved.
8. Different food samples contain different amount of DNA. Design an experiment to investigate the statement above and explain the concepts involved.
9. Using a simple machine, design an experiment to lift a load using less force. Explain the concepts involved.
10. Different food samples contain different amount of calories. Design an experiment to investigate the statement above and explain the concepts involved.
11. How does the angle of the Sun striking a solar cell affect how much electricity the cell produces? Design an experiment to investigate the statement above and explain the concepts involved.
12. Design an experiment to determine whether there is enough energy stored in a fruit or a vegetable to power a light. Explain the concepts involved.
13. Build a very simple magnetic accelerator to launch steel balls at targets and prove that the velocity of the projectile would increase as number of magnet stages increased. Explain the concepts involved.
14. How will temperature affect the elasticity of rubber? Design an experiment to investigate the query above and explain the concepts involved.
15. Design an experiment to observe how increasing a liquid's temperature can affect its surface tension. Explain the concepts involved.
16. Investigate what kind of packaging material works best to protect products from damage. Explain the concepts involved.
17. How does the size of a windmill's sail affects the amount of electricity produced? Design an experiment to investigate the query above and explain the concepts involved.
18. Amount of light affects the rate of photosynthesis. Design an experiment to investigate the statement above and explain the concepts involved.
19. Design an experiment to find out the best way to remove chlorine in water. Explain the concepts involved.
20. Different concentration of solutions affects the rate of osmosis. Design an experiment to investigate the statement above and explain the concepts involved.





10ஆம் ஆண்டு தேசிய இளம் ஆய்வாளர்களின் அறிவியல் விழாவில்

பினாங்கு சுங்கை ஆரா தமிழ்ப்பள்ளி வானக சூடியது

(சுப்ரா)

காஜாங், ஜூலை 20- பாங்கியிலுள்ள மலேசியன் டிரைமன் உயர்கல்விக்க கழகத்தில் நேற்று நடைபெற்ற இளம் ஆய்வாளர்களின் அறிவியல் விழாவில் பினாங்கு மாநிலத்தைச் சேர்ந்த சுங்கை ஆரா தமிழ்ப்பள்ளி முதலாவதாக தேர்வு செய்யப்பட்டு பினாங்கு பரிசை வென்றது.



இக்குழுவிற்கு கழறினாஃம், சான்றிதழ், ரொக்கம் வெ.2,000 பரிசாக வழங்கப்பட்டன.பள்ளி, வட்டாரம், தேசியம் என மூன்று வட்டங்களாக இப்போட்டி ஏற்பாடு செய்யப் பட்டு இதன் இறுதிப் போட்டி நேற்று நடைபெற்று முடிந்தது. 9 மாநிலங்களை பிரதிநிதித்து மொத்தம் 252 பள்ளிகள் கலந்து கொண்ட இறுதிப் போட்டிக்கு 50 பள்ளிகள் தேர்ந்தெடுக்கப்பட்டன. இதில் சுங்கை ஆரா தமிழ்ப்பள்ளி முதலாவதாகவும், இரண்டாவதாக மெந்தகாப், லோபாக், பெர்மாஸ் ஜெயா, ஜலான் யாஹ்யா அவால், தாயான் துன் அமினா ஆகிய 5 பள்ளிகள் தங்கப் பரிசினை பெற்றன. இப்பள்ளிகளுக்கு தலா 1000 வெள்ளியும், கோப்பையும் சான்றிதழும் வழங்கப்பட்டன. போட்டியில் கலந்து கொண்ட பெர்மாஸ் ஜெயா பள்ளிக்கு 400 வெள்ளியும் மூன்றாவதாக வெற்றி பெற்ற காரக் தமிழ்ப்பள்ளிக்கு 200 வெள்ளியும் பரிசாக வழங்கப்பட்டன. பத்தாவது வால் போட்டியில் முதலாவதாக கமுண்டிங் தமிழ்ப்பள்ளி தேர்வு பெற்று 750 வெள்ளி பரிசு பெற்றது. இரண்டாவதாக கூலாய் பெசாஃ தமிழ்ப்பள்ளி தேர்வாக 500 வெள்ளியையும் மூன்றாவதாக புளாசாமி குமார் தமிழ்ப்பள்ளி தேர்வு பெற்று 250 வெள்ளி ரொக்கத்தையும் தட்டிச் சென்றன. இந்தப் போட்டியில் வெற்றி பெற்றவர்களுக்கு டத்தேர் டாக்டர் ஜெயந்திரன் பரிசுகளை எடுத்து வழங்கினார். இந்த இளம் ஆய்வாளர்கள் அறிவியல் விழாவில் ஜெயிப் பதே தேர்பதே முகியலால், இதில் கலந்து கொண்டவர்கள் மிக முக்கியம். தற்போது உங்களுக்குள் கொடுத்துவிட்டு எரியு



எல்லா பள்ளிகளுக்கும் ஏற்பாட்டாளர்கள் பரிசுகளை வழங்கினர். 34 தமிழ்ப்பள்ளிகள் வெண்கலமும், 20 தமிழ்ப்பள்ளிகள் வெள்ளியும் பெற்றன. அறிவியல் கேள்வி பதில் அங்கத்தில் கூலாய் பெசாஃ தமிழ்ப்பள்ளி முதலாவதாக வந்து 500 வெள்ளியை தட்டிச் சென்றது. இரண்டாவதாக வெற்றி பெற்ற தீபாணது இன்னும் நூறு ஆண்டுகளுக்கு எளிய வேண்டும் என்பதே எங்கள் நோக்கம். புதுப்புது கண்டு பிடிப்புகளை நீங்கள் உருவாக்க வேண்டும் என்பதே எங்கள் கனவு என இந்த திகழ்ச்சிகள் ஏற்பாட்டாளரும் ஸ்தலபகரு மான முகமட பூனாஸ் முகமட யாசிள் கூறினர்.

**அறிவியல் விழாவில் சிம்பாங் லீமா தமிழ்ப்பள்ளி
இரண்டாம் நிலையில் வாகை சூடியது**



அறிவியல் விழாவில் வென்ற சிம்பாங் லீமா தமிழ்ப்பள்ளி மாணவர்களுடன் ஆசிரியர்கள்.

(த.மேத்தியூஸ்) மாநில அளவிலான தமிழ்ப்பள்ளி களுக்கிடையில் நடைபெற்ற பாரிட் புத்தா, மே 26- பேரா 2016 ஆம் ஆண்டுக்கான அறிவி

யல் விழாவில், கிரியான் மாவட்டத்திலுள்ள சிம்பாங் தமிழ்ப்பள்ளி சிறந்த கண்டுப் பிடிப்புக்கான போட்டியில் இரண்டாம் நிலையில் வெற்றிவாகை சூடியது. எதப்பிச் செயினட் திரேசா தமிழ்ப்பள்ளியில் நடைபெற்ற இவ்விழாவில் மாணவர்கள் செனியா தேவி, இரா. திலகன், இரா.இரோஷான், ரு.சர்வீன், ஜெ.சர்வேந்திர ரெட்டி ஆகியோர் பாரிட் புத்தா சிம்பாங் லீமா தமிழ்ப்பள்ளியை பிரதிநிதித்துவம் கலந்து கொண்டனர்.

பள்ளியின் தலைமையாசிரியர் திருமதி. த.திலகவதியின் தலைமையில், ஆசிரியைகள் கி.ஜமுனா, ரா.பர்வதி இருவரும் பொறுப்பாசிரியர்களாகப் பணிபுர்தினர்.

**இளம் ஆய்வாளர் அறிவியல் விழா
பீடோர் தனூன் தமிழ்ப்பள்ளி வெற்றி**



(எஸ்.எஸ்.பாதன்)

தஞ்சை மாவில், மே 26 அன்றையில் இங்குள்ள உப்சிபல் கலைக்கழகத்தில் நடைபெற்ற தென் பேரா தமிழ்ப்பள்ளிகள் பங்கு கொண்ட இளம் ஆய்வாளர் அறிவியல் விழாவில் பீடோர் தனூன் தோட்டத் தமிழ்ப்பள்ளி முதல் நிலையில் வெற்றி கொண்டது. வேளையில் பத்துகாஜா சங்கட் தமிழ்ப்பள்ளி புத்தாக்கப் பிரிவில் சிறந்த பள்ளியாக தேர்வு பெற்றது.

பொதுப் பிரிவில் தெலுக் இந்தாள் ரூபானா தோட்டத் தமிழ்ப்பள்ளி இரண்டாவது நிலையில் சிலிம் ரிவ் தமிழ்ப்பள்ளி மூன்றாவது நிலையிலும் வெற்றி பெற்றன. புத்தாக்கப் பிரிவில் தெலுக் இந்தாள் ரூபானா

தமிழ்ப்பள்ளி இரண்டாவது நிலையிலும் துரோலாக் தமிழ்ப்பள்ளி மூன்றாவது நிலையிலும் வாகை சூடியது. கல்வியமைச்சு, செங்கு எனப் பட்டும் இந்திய சமூக கல்வி மேம்பாட்டு திட்டக் குழுவின் ஆதரவில் நடைபெற்ற இளம் ஆய்வாளர் அறிவியல் விழா மாணவர்கள்

அறிவியல் துறையில் ஆர்வம் காட்டுவதற்கு அடித்தளமாக அமைகிறது என தமிழ்ப்பள்ளி தலைமையாசிரியர்கள் தெரிவித்தனர்.

இதுபோன்ற விழாக்கள் புல இந்திய அறிவியலாளர்களை உருவாக்கும் என்பதில் சந்தேகமில்லை என தெரிவித்தனர்.



(எம்.கே.வள்ளுவன்)

கங்கர் பூலாய், பிப். 25- அறிவியல் சாதனைகளில் தமிழ்ப்பள்ளி மாணவர்கள் பல சாதனைகளை படைத்துவரும் வேளையில் கல்வியமைச்சு ஆதரவுடன் பெட்டாலிங் ஜெயா ஒன்மோல் மையத்தில் ரோபரட்டிக்ஸ் லேர்னிங் அமைப்பின் ஏற்பாட்டில் நடைபெற்ற வெக்ஸ் ஐகிபூ சவால் போட்டியில் அறிவியல் தொழில்நுட்பம், பொறியியல், கணக்கியல் எனப்படும் ஸ்டீம் திட்ட போட்டியில் கங்கர் பூலாய் தமிழ்ப்பள்ளி மாணவர்கள் முதல் நிலையில் வந்து சாதனை விருதினை தட்டிச் சென்றனர்.

தேசிய அளவில் நடைபெற்ற இப்போட்டியில் நான்கு பிரிவுகளை நடைபெற்ற போட்டியில்



**அறிவியல் சாதனையில்
கங்கர் பூலாய் தமிழ்ப்பள்ளிக்கு சிறப்பு விருது**



ஸ்டீம் திட்ட போட்டியில் முதல் பிரிவுகளில் முறையே இரண்டாம் நிலையிலும் மற்ற மூன்று வதாகவும் மூன்றாவதாகவும்

நான்காவதாகவும் கங்கர் பூலாய் தமிழ்ப்பள்ளி மாணவர்கள் வென்றனர்.

ஆசிரியை சிவசங்கரி தலைமையில் இப்போட்டியில் ஒரே தமிழ்ப்பள்ளி மட்டும் கலந்து கொண்ட வேளையில் மொத்தம் ஒன்பது குழுக்கள் இரு நாள் நடுத்தேர்வின் வழி இறுதி போட்டிகளில் கலந்துகொண்டன. இயந்திர உருவத்தை உருவாக்குவதுடன் அதி விரைவாக அதனை செயல்படுத்துவதால் ஸ்டீம் திட்ட பிரிவில் நாம் வெற்றிபெற முடிந்ததாக அவர் தெரிவித்தார்.

மொத்தம் 17 மாணவர்கள் இரு

பிரிவுகளாக போட்டிகளில் கலந்துகொண்ட வேளையில் பள்ளியின் ரோபட்டிக் கழகம் போட்டியில் கலந்து கொள்வதற்கான ஏற்பாட்டை செய்திருந்தது வெற்றிபெற்ற மாணவர்களை கல்வி துணையமைச்சர் டத்தோ பி.கமலநாதன் நேரில் வந்து வாழ்த்தியதாகவும் ஆர்.சிவசங்கரி தெரிவித்தார்.

இதனிடையே போட்டியில் கலந்துகொண்ட சாதனை படைத்த மாணவர்களை பாராட்டிய பள்ளி தலைமை யாசிரியர் ஆர்.காளியன்னைன் மாணவர்களின் அறிவாற்றல் மிகப் பெரிய பொக்கிஷம் என புகழாரத்தார்.



நெகிரி மாநில அளவிலான அறிவியல் விழா நீலாய் தமிழ்ப்பள்ளி வெற்றி!



நீலாய், ஜூன் 4- நெகிரி செம்பிலான் மாநில தமிழ்ப்பள்ளிகளுக்கு இடையில் நடத்தப்பட்ட அறிவியல் விழாவில் நீலாய் தமிழ்ப்பள்ளி மாணவர்கள் வெற்றி பெற்றனர். சக்தி அறவாரியத்தின் முழு ஆதரவில் நெகிரி மாநில தமிழ்ப்பள்ளி தலைமையாசிரியர் மன்றம் ஒவ்வொரு வருடமும் இந்த இளம் ஆய்வாளர்களின் அறிவியல் விழாவை ஏற்பாடு செய்து வருகிறது. அவ்வகையில் 2016ஆம் ஆண்டுக்கான இளம் ஆய்வாளர்களின் நீலாய் எல்பிஎஸ் லிட் டல் சென்னையில் நடை

பெற்றது. இந்த அறிவியல் விழாவில் நெகிரி மாநிலத்தைச் சேர்ந்த 62 தமிழ்ப்பள்ளி மாணவர்கள் கலந்து கொண்டு தங்கள் திறனை வெளிப்படுத்தினர். ஒவ்வொரு பள்ளியைச் சேர்ந்த மாணவர்களும் தங்களுக்கென ஒரு தனித் தலைப்பை எடுத்துக் கொண்டு அதில் உள்ள அறிவியல் அம்சத்தை எடுத்துக் காட்டும் வகையில் ஆய்வுகளை படைத்தனர். மலேசிய அறிவியல் புத்தாக்க இயக்கத்தின் நீதிபதிகள் இந்த அறிவியல் விழாவிற்கு வருகை

புரியும் வகையில் மாணவர்களின் படைப்புகள் இருந்தன என்று நெகிரி மாநில மலேசிய மக்கள் சக்தி கட்சியின் துணைத் தலைவர் டத்தோ வீ. சரவணக்குமார் கூறினார். தமிழ்ப்பள்ளி மாணவர்கள் தேசிய அளவை கடந்து அனைத்துலக ரீதியில் சாதனைப் படைத்துக் கொண்டிருக்கிறார்கள். இப்பெரிய சாதனைகளுக்கு அடித்தளமாக இருப்பது இந்த அறிவியல் விழாக்கள் தான். ஆகவே இதுபோன்ற போட்டிகள் தொடர்ந்து நடத்தப்பட வேண்டும். தம்மை பொறுத்தவரையில் எந்தவொரு பாடுபாடின்றி தமிழ்ப்பள்ளி மாணவர்களுக்கு

ஆதரவு வழங்கி கொண்டே இருப்பேன். அதே போன்று இனி தொடர்ந்து நடைபெறும் இதுபோன்ற அறிவியல் விழாக்களுக்கு ஆதரவு வழங்க தயாராக இருப்பேன் என்று டத்தோ சரவணக்குமார் கூறினார். இதனிடையே இந்த அறிவியல் விழாவில் நீலாய் தமிழ்ப்பள்ளி மாணவர்களின் படைப்புக்கு முதல் பரிசு வழங்கப் பட்டது. மலேசிய மக்கள் சக்தி கட்சியின் துணைத் தலைவர் டத்தோ ஆர்.கே. ரமேஷ், டத்தோ சரவணக்குமார் உட்பட பல பிரமுகர்கள் வெற்றி பெற்ற மாணவர்களுக்கு பரிசுகளை எடுத்து வழங்கினர்.



துன் அம்னா தமிழ்ப்பள்ளியில் அறிவியல் விழா



5.கே.எல்.என்
பள்ளி அளவில் இளம் ஆய்வாளர்களுக்கான அறிவியல் விழாவை நடத்தி வரும் வேளையில் இங்கு துன் அம்னா தமிழ்ப்பள்ளியும் பள்ளி அளவில் அறிவியல் விழாவை சிறப்புடன் நடத்தியது. பள்ளி தலைமையாசிரியர்



என்.ரஜீந்திரன், பெற்றோர் ஆசிரியர் சங்கத் தலைவர் டத்தோ பி.ராஜா ஆகியோர் முன்னின்று நடத்திய இந்த அறிவியல் விழாவின் இளம் ஆய்வாளர்களின் அறிவியல் விழா ஒருங்கிணைப்பாளர்களில் ஒருவரான முனைவர்



கப்பிரமணியம் இந்த விழாவை தொடக்கி வைத்து அறிவியல் விழாவில் கலந்து கொண்ட மாணவர்களை வெகுவாகப் பாராட்டினார். மற்ற பெற்றோர் பள்ளிகளை விட தமிழ் பெற்றோர் பள்ளிகளில் பயிலும் மாணவர்கள் அறிவியல்



துறைபில் பிகவும் சிறந்து விளங்குவதை அண்மையக் காலங்களில் மாணவர்கள் உலக அளவில் வெற்றி பெற்ற வருவதன் மூலம் திருத்திதுள்ளதாக கப்பிரமணியம் குறிப்பிட்டார். இந்த சாதனைகள் தொடர் வேண்டும் என வலியுறுத்திய துன் அம்னாவுக்கான வெற்றிக்காக பாடுபட்டு வரும் ஆசிரியர்களையும் வெகுவாகப் பாராட்டினார். விழாவில் பங்கு கொண்ட மாணவர்களுக்கு பரிசுகளும் வழங்கப்பட்டன.















இளம் ஆய்வாளர்களின் அறிவியல் விழா Science Fair for Young Children

நன்கொடை ஒப்புதல் படிமம் Contribution Form

<input type="checkbox"/> School Level Science Fair	:	RM 450 X	<input type="text"/>	per school	RM
<input type="checkbox"/> State Level Science Fair	:	RM 300 X	<input type="text"/>	per school	RM
<input type="checkbox"/> National Level Science Fair	:	RM 350 X	<input type="text"/>	per pax	RM

~~~~~

RM 5,000       RM10,000       RM 15,000       RM 20,000

Name of Donor: \_\_\_\_\_

Organization: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Tel. No.: \_\_\_\_\_ Fax: \_\_\_\_\_

H/P No: \_\_\_\_\_ Email: \_\_\_\_\_

Cheque/ காசோலை : RM  Cheque No.:

*in favour of*

PERTUBUHAN SAINS, TEKNOLOGI DAN INOVASI

(No. Pendaftaran: PPM-012-10-25102012)

CIMB Account No: 8002711086

\*Note : to receive an official Receipt, please fax this donation form & bank slip to 03-7877 8571

\_\_\_\_\_  
Signature/ கையொப்பம்

\_\_\_\_\_  
Date/ திகதி