

Infinite Wonders!



Annual Report 2012/2013



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Our Team



Chairman's Review

Visitorship

It is a privilege to present this year's report on the Science Centre's achievements and plans. The Board and Science Centre management team have been continually bringing together exciting programmes and activities that have aided in shaping an eventful year, partnering many significant collaborators and enriching our visitors.

Amidst a challenging market, the Science Centre garnered a visitorship of 913,594, with all three attractions – Science Centre, Omni-Theatre and Snow City – attracting 1.26 million visitors in total. Our Visitor Experience Index has remained high at 4.25/5.

35th Anniversary

This year marks a very special year for the Centre as it celebrates 35 years of inspiring and nurturing a nation with science and technology. The Centre has come a long way in the past 35 years and we are proud of all we have achieved. As we celebrate the past and shape the future, we take this opportunity to acknowledge and thank our partners and sponsors for their support and many contributions over the past three and a half decades.

We kick-started our year-long 35th Anniversary celebrations with the third unveiling of the Science Time Capsule in an exhibition showcasing Singapore's rich science and technology heritage. We were honoured to have our patron, Deputy Prime Minister Teo Chee Hean launch the exhibition.

As science and technology progress, so must we. We have

to reinvent to continue playing a key role in raising science literacy among youths and the public, and building the science capacity of future generations.

Moving forward into a new phase of the Centre's history, we continue to make forward strides to transform the minds of millions and be the preferred partner for all things related to science.

Asia Pacific Network of Science & Technology Centres (ASPAC) 2012 Conference & Tradeshow

In April, the Centre had the great pleasure of hosting the largest annual ASPAC Conference & Tradeshow. The desire to rethink and reinvent the old for the better by questioning norms and testing possibilities is something the Science Centres the world over seek to achieve.

Themed "Reinvention", the conference explored how science can be made relevant to today's youth. The sub-themes, "New Generation Science" and "Relevant and Unique Science" went under the microscope and were explored in great depth by a gathering of some of the greatest minds in science popularisation.

Milestones & Awards

As the Science Centre commemorates another year brimming with successful events, we have been nationally and internationally recognised for the quality in both our programmes and services.

We have received two international awards; namely Best Educational Programme by the Giant Screen Cinema Association Award 2012 for the "Born to be Wild" IMAX Movie Programme and the IMAX Best Booth Award for our Omni-Theatre Singapore.

Awards that have been achieved locally are Best Enrichment Experience by the Singapore Tourism Board for our Science Enrichment Programmes and also the Platinum Award by the Health Promotion Board. On behalf of the Board, I thank and congratulate each and every one who has contributed to our achievements.

New Initiatives

The Centre prides itself on making science an inspiring and exciting experience for all. To this end, new efforts have been initiated to improve and value-add to students' and visitors' experiences.

The upcoming Children Science Centre will provide a safe and exciting environment with endless opportunities for young children (2 to 8 years of age) and their families to dream, imagine and discover the wonders of science together.

The Digital Planetarium and Interactive Virtual Aquarium are among the other initiatives that we hope to get in the pipeline. Of these, the former will be set up within the Omni-Theatre using state-of-the-art technology to allow viewing of stars, planets and other astronomical objects in real time.

The latter is yet another state-of-the-art experience for visitors, allowing them to view and interact

with aquatic creatures in a three-dimensional virtual aquarium.

On the education front, several new learning resources were launched in the year, including three for student learning i.e. "Let's Explore" kits on Chemistry, Magnetism and Electricity and a new Light STaR Kit for teachers. The revamped Young Scientists Cards Scheme now caters to new ways of learning science and promoting child-parent activity bonding.

Collaborations & Community Engagement

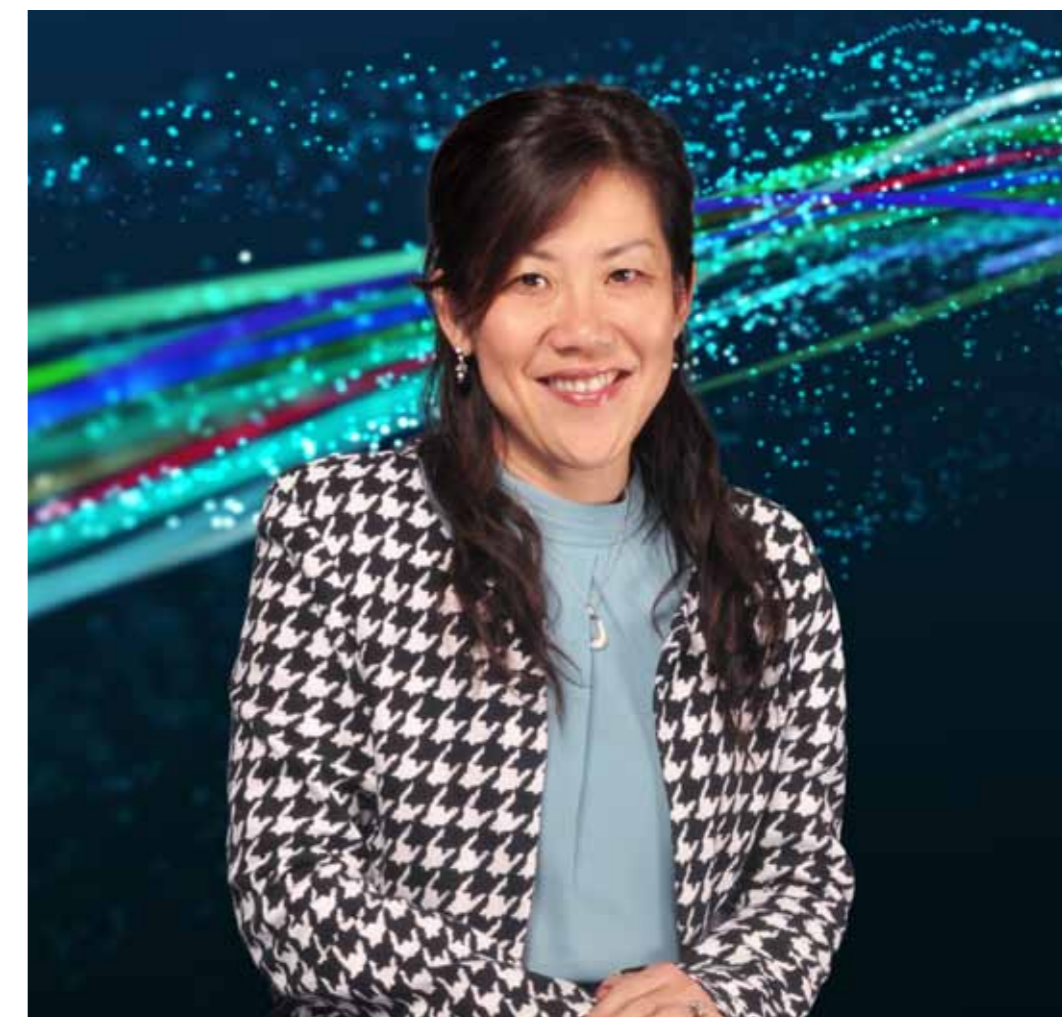
This year, the Centre entered into many international and local partnerships. As part of Science @ JEM, a collection of 7 interactive exhibits developed by the Centre will be installed at the newly opened Jurong East Mall (JEM). This is the first time that a shopping mall has allocated a permanent space for us to showcase our exhibits.

Another interesting alliance with the Singapore University of Technology & Design (SUTD) provided students a rare chance to have their projects turned into exhibits at the Centre.

I would also like to mention the inaugural Global Young Scientists Summit (GYSS), hosted by the Centre in collaboration with the National Research Foundation (NRF). Aimed at inspiring young aspiring "scientists-to-be", 5 eminent scientists, including 3 Nobel Laureates, joined us for this forum which was attended by nearly 200 students.

Board Members

I would like to take this opportunity to welcome the new members who



joined the Board this year, including Ms. Melissa Ow, Mr. Lim Eng Hwee, Mr. Kenneth Tan, Mr. Zaqy Mohamad, Ms. Shirley Wong, Mr. Eiji Koike and Mr. Bruce Poh.

I would also like to thank the exiting board members, Mr. Chia Mia Chiang, Dr. Tan Hai Meng, Mr. Alex Siow, Prof. Andrew Wee and A/Prof. Ashraf Ali for their dedication and commitment in serving faithfully during their years on the Board.

Support & Appreciation

As another year passes, we take the time to acknowledge and appreciate our many partners and sponsors who have given us immense support throughout the years and helped us to accomplish our goals of sharing the many wonders of science through

exciting and inspiring exhibitions, programmes and events.

I would like to thank the Board for their unwavering commitment and support as well as the Centre's management and staff for their enduring determination to face challenges and help bring ideas to reality.

To continually meet challenges head on and overcome any obstacles we might face, let us keep our creative juices bubbling and innovative minds agile so as to strengthen and improve our offerings and keep our aspiration of being an Edutainment champion alive.

MS TAN YEN YEN

Chairman
Science Centre Board

Board Members



MS TAN YEN YEN
Chairman



MR QUEK GIM PEW
Deputy Chairman



MR PHILLIP TAN



MR CHIA MIA CHIANG #



DR GOH CHONG CHIA



DR TAN HAI MENG #



MR LEE ARK BOON



MR ALEX SIOW #



PROF ANDREW WEE #



MRS TAN MUI HWOON



MR MARTIJN VAN KOTEN



MS ANG EE LUANG



PROF PAUL TENG



A/PROF ASHRAF ALI BIN MOHAMED KASSIM #



MR SIN KIM HO



MS MELISSA OW *



MR LIM ENG HWEE *



MR KENNETH TAN *



MR ZAQY MOHAMAD *



MS SHIRLEY WONG *



MR EJI KOIKE *



MR BRUCE POH *

Service rendered until 31 Jan 2013

* Joined 1 Feb 2013

Management Team

Director's Office:

A/Prof Lim Tit Meng
Chief Executive



Mr Clarence Sirisena
Assistant Chief Executive,
Projects & Exhibitions &
Advancement Office



Mrs Anne Dhanaraj
Senior Director,
Education
Programmes



Corporate Services:

A/Prof Lim Tit Meng
Chief Executive



Mrs Veronica Heng
Director, Operations



Mr Michael Chay
Director, Marketing &
Communications



Ms Wendy Cheong
Director,
Human Resources



Ms Cham Lee Fin
Director, Finance &
Administration



Dr Andrew D Giger
Director, Research
& Web Outreach &
International Relations



Projects & Exhibitions:



Education Programmes:



Highlights



Highlights 2012/13



ASPAC 2012

In April, Science Centre Singapore hosted the 12th Annual Asia Pacific Network of Science & Technology Centres (ASPAC) Conference.

ASPAC 2012 brought together Asia Pacific's finest in science and technology communication as they shared ideas, exchanged knowledge and showcased innovations. About 350 delegates from regional and international science centres and relevant organisations attended the conference. Themed 'Reinvention', the focus for ASPAC 2012 was on how new generation science centres could be made relevant and unique to today's youth.

The conference encouraged audiences to realise the paramount importance of science and the crucial role science centres play in inspiring new generations of aspiring scientists and engineers.

Notable speakers and delegates included Dr. Dennis M. Bartels, Executive Director of the Exploratorium in San Francisco, Dr. Michel John Gorman, Director of Science Gallery, Ireland and Adjunct Professor of Creative Technologies at Trinity College Dublin, and Prof. Kerry Sieh, Director of Earth Observatory of Singapore. Another prominent speaker, Dr. Wei-Hsin Sun of the National Museum of Natural Science in Taiwan, spoke about the future challenges facing Earth and the importance of science to solve sustainability issues.



35th Anniversary
SCIENCE CENTRE
*Celebrating the Past,
Shaping the Future*

SCIENCE CENTRE CELEBRATES 35TH ANNIVERSARY

The Science Centre celebrates 35 years of promoting interest and creative learning in science and technology. Over the past three and a half decades, the Centre and its partners have played a crucial role in transforming the way students and the public engage and learn about science. Together with the Omni-Theatre and Snow City, the Centre has enriched more than 29.5 million visitors since opening in 1977.

In a kick-off to its year-long anniversary celebration, the Science Centre unveiled the Science Time Capsule in an exhibition graced by Deputy Prime Minister and Patron of Science Centre, Mr. Teo Chee Hean. First sealed in 1973, the Science Time Capsule bears testament to a heritage of science, technology and societal progress in Singapore over the past four decades.

The year-long celebration will also see events like the bigger-than-before Singapore Science Festival and blockbuster exhibitions like Megabugs Return! and Alfred Wallace.

As we step into the future, the Centre hopes to continue to be a torchbearer of Singapore's scientific progress and the spirit of innovation, helping to inspire young scientists and build up successive generations of innovators.



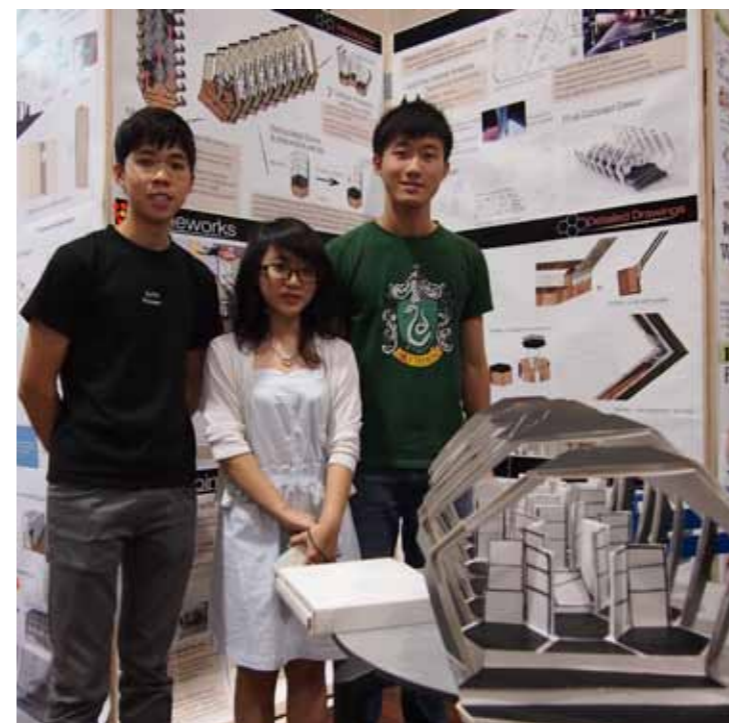
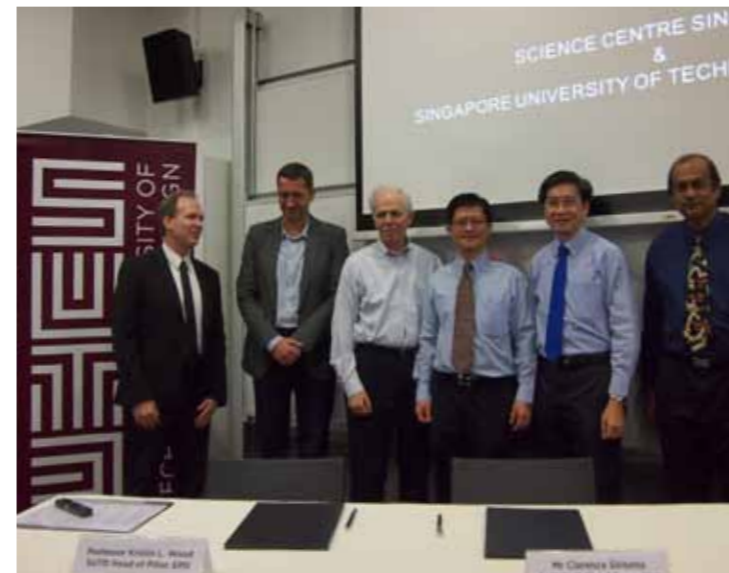
SCIENCE TIME CAPSULE

This year marked the 3rd opening of the Science Time Capsule, with the accompanying exhibition heralding the Centre's 35th Anniversary celebration. Mr. Teo Chee Hean, Deputy Prime Minister and Patron of Science Centre said, "Since the Science Centre Singapore was opened in December 1977, it has played a pivotal role in transforming the way students and the public discover and learn about the marvels of science and technology. Working closely with its partners, the Science Centre has captured the essence of key scientific developments through unique exhibitions, making science come alive for Singaporeans, young and old, from all walks of life."



NEW PATRON FOR SCIENCE CENTRE

It was a proud moment for the Science Centre as it announced its new Patron, Mr. Teo Chee Hean, Deputy Prime Minister, Coordinating Minister for National Security and Minister for Home Affairs, during its Partner Appreciation Night. The appreciation dinner was held to acknowledge and thank all partners and sponsors for their continuous support of the Centre and its programmes and initiatives. It was also an opportune time to reflect on future collaborative opportunities and sponsorships of new projects, including the Children Science Centre and Digital Planetarium. In all, the Centre welcomed over 200 guests from numerous public and private organisations.



COLLABORATIONS

We value the role our partners and members have played towards the success of our various exhibitions, events and programmes. Close relationships have also been fostered with many international science centres, including the Exploratorium in San Francisco. Also worth mentioning is the consultancy service provided to Indonesia's Jungle Land Theme Park. The Centre not only helped in setting up their science exhibition section but also leased its Robot Zoo exhibition for the purpose.

The year also saw many local partnerships. One of our collaborations with the Singapore University of Technology & Design (SUTD) was to initiate a programme that allowed interactive prototype exhibits by SUTD students to become permanent exhibits in the Centre's galleries. Science in the Mall is another project which was initiated by the Centre. As the name suggests, the project brought exhibits, science shows, demonstrations and interactive activities to shopping malls. For the first time, permanent space has been allocated in the Jurong East Mall (JEM) for the Centre to display its science exhibits.

We have tied up with various educational institutions like Republic Polytechnic to offer student internships and other programmes within the Centre. The Centre also hosted the inaugural Global Young Scientists Summit (GYSS), a stellar gathering where 200 students got a chance to interact with five eminent scientists.

This is not all. Our collaboration with Sky Greens will enable students to delve into the physics, engineering and biology involved in the success of this high-tech farm. The innovative commercial-scale vertical farm is a great way for students to witness and experience various aspects of farming like harvesting and transplanting. They can also appreciate the power of science and technology in creating green urban solutions.

Awards 2012/2013

1) ASTC Leading Edge Awards 2012

By the Association of Science-Technology Centers
Finalist for 'Reinventing Science Centre Singapore's Overall Visitor Experience'

2) ASPAC President's Award 2012

By Asia Pacific Network of Science & Technology Centres
Dr. Chew Tuan Chiong (former Chief Executive of Science Centre Singapore)

3) Giant Screen Cinema Association Award 2012

Best Educational Programme (Born to be Wild Programme and Children's Day Programme)

4) IMAX Best Booth Award 2012

Omni-Theatre Singapore

5) Singapore Experience Awards 2012

By Singapore Tourism Board
Best Enrichment Experience (DNA Learning Lab Programmes)
Finalist for Most Innovative Marketing Initiative (Dinosaurs-Live! Exhibition)

6) Singapore Health Awards 2012

By Health Promotion Board
Platinum Award

7) Total Defence Award 2012

By Ministry of Defence
3rd Tier Meritorious Defence Partner

8) Little Day Out Parents' Choice 2013 Poll Awards

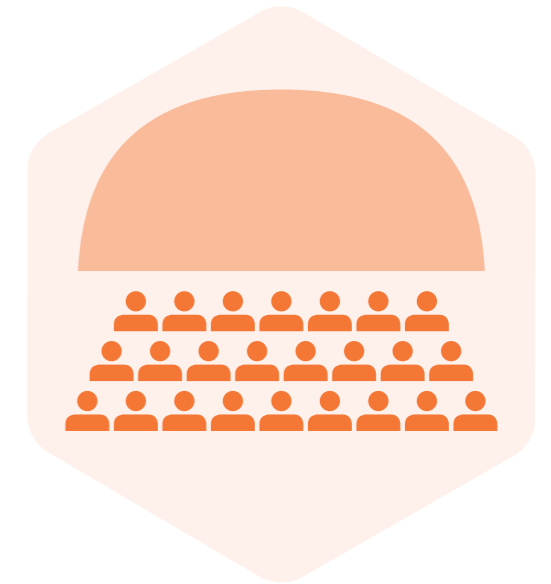
Best Educational, Arts, Cultural or Heritage Places 2013

Key Statistics



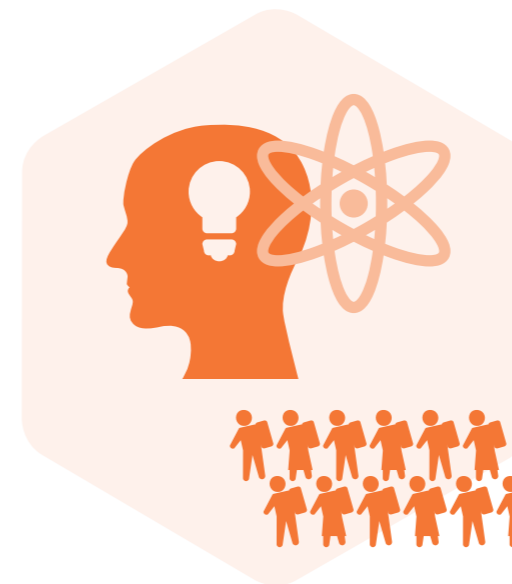
Number of visitors to the Science Centre

FY 10/11	FY 11/12	FY 12/13
1,113,905	1,025,299	<u>913,594</u>



Number of visitors to the Omni-Theatre

FY 10/11	FY 11/12	FY 12/13
216,117	255,692	<u>222,208</u>



Number of students who attended science enrichment programmes

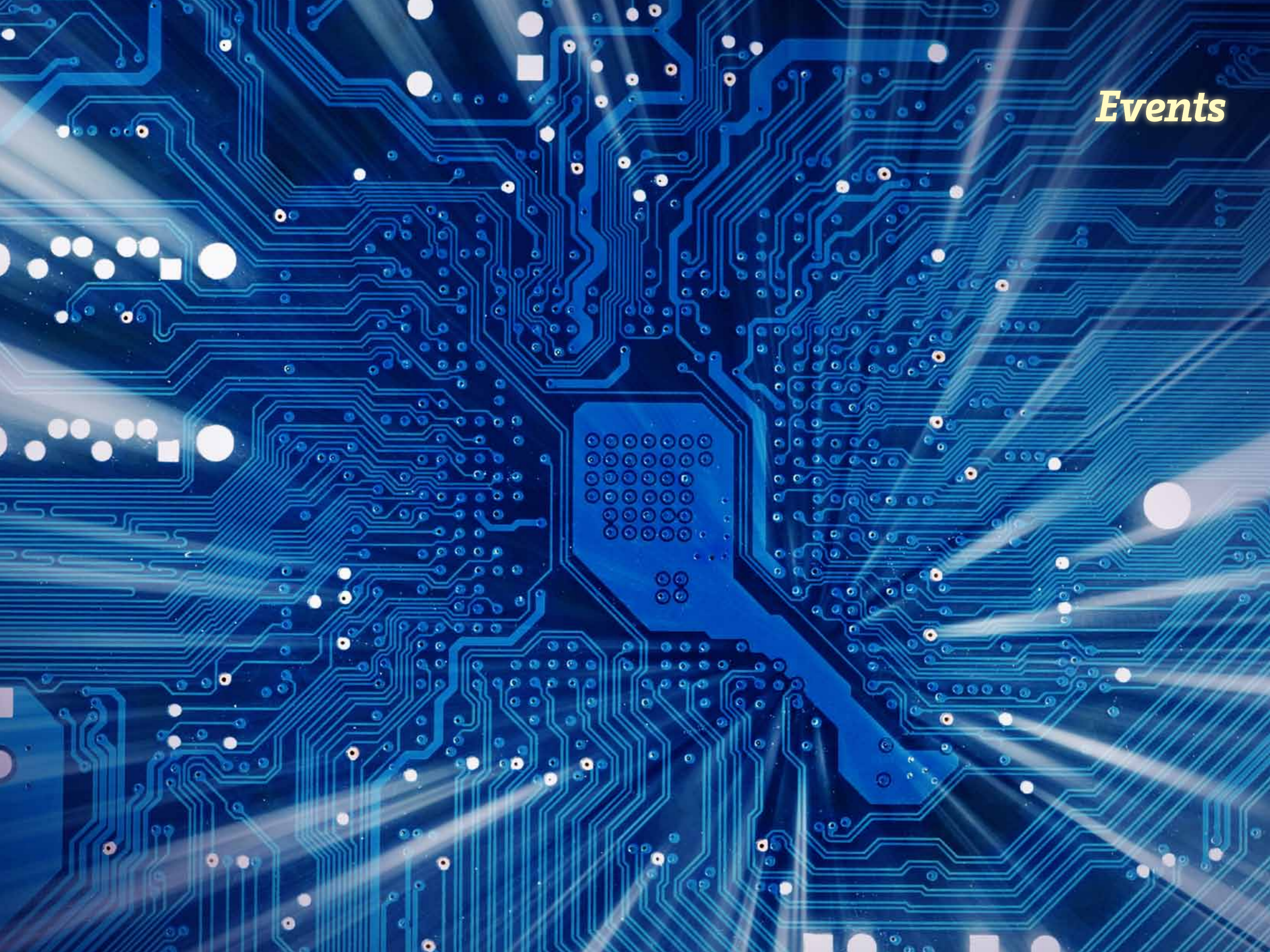
FY 10/11	FY 11/12	FY 12/13
231,689	213,000	<u>230,515</u>



Visitor Experience Index

FY 10/11	FY 11/12	FY 12/13
4/5	4/5	<u>4.25/5</u>

Events



Events Timeline

April 2012

ASPAC 2012 Conference & Tradeshow

Launch of Sultans of Science Exhibition

Launch of Candy Unwrapped Exhibition



May 2012

35th Shell Singapore Youth Science Festival

Tan Kah Kee Young Inventors' Award

Launch of CRADLΣ (Centre for Research & Applied Learning in Science)



June 2012

Science in the Mall: X-ploring Dinosaurs!

Venus in Transit event at Omni-Theatre/Observatory

Launch of Biorhythm Exhibition



July 2012

Sony Creative Science Award

Launch of National Science Challenge

Singapore Science Festival

GeneFest

Kids Science Fest

Launch of Ring of Fire IMAX Movie

Singapore Mini Maker Faire



August 2012

Amazing Science-X Challenge

Science Buskers Festival

Partner Appreciation Night

Launch of To The Arctic IMAX Movie



September 2012

National Junior Robotics Competition



October 2012

Launch of Defence Science Revealed Exhibition

Young Learners' Festival



November 2012

Launch of Science Time Capsule Exhibition

First Tech Challenge Singapore

Scinematation



December 2012

Launch of Quirky Exhibition

Launch of China: The Panda Adventure IMAX Movie

Launch of Flight of the Butterflies IMAX Movie



January 2013

20th Singapore Robotic Games

Launch of revamped Young Scientist Cards Scheme



March 2013

MindFest

Singapore Amazing Flying Machine Competition

Singapore Science & Engineering Fair

First Lego League Singapore

Launch of Meteorites Exhibition

Exhibitions and Shows

DEFENCE SCIENCE REVEALED

Defence Science Revealed is Singapore's largest defence science exhibition. It uncovered the amazing science behind many military marvels and provided a glimpse of many game-changing solutions on the battlefield.

This interactive, thought-provoking exhibition allowed students and visitors to explore defence applications and learn the importance of the fundamental principles behind these applications.

Highly informative, the exhibition was divided into three zones: Surveillance and Stealth, Science of Flight, and Armour and Protection. Each zone highlighted the different uses of science and technology behind military operations and how they are applied on the battlefield.



Cameras with Singapore-made lens and flash gun, Rollei Singapore (P.T.E.) Ltd, 1973



Photographs of Trishaws, bus and taxi, Singapore Registry of Vehicles, 1973 and 1983

TIME CAPSULE

To mark its 35th Anniversary, the Science Centre kick-started the celebration with the launch of the Science Time Capsule exhibition. In tribute to its anniversary theme of "Celebrating the Past, Shaping the Future", the exhibition showcased over 100 exhibits tracing the evolution of Singapore over the past four decades, as well as new items contributed by prominent industry partners.

Vintage cameras and watches, old price lists of meats and dairy products, historic photographs and more, gave visitors a glimpse into a bygone era. Visitors also got a taste of the present and future in BMW's "Driven by Sustainability" exhibit, models of local satellite VELOX-1, an all-terrain tracked vehicle BRONCO, locally developed indie games and more.

This was the third time the capsule had been opened since its encapsulation in 1973.



▲ Cassette Recorder FMMWLW, Trans-Airo Electronics Pte Ltd, 1973



Deputy Prime Minister, Co-ordinating Minister for National Security & Minister for Home Affairs, and Patron of Science Centre Singapore, Mr. Teo Chee Hean gracing the opening of the Time Capsule Exhibition at the Science Centre.

SULTANS OF SCIENCE

The Sultans of Science: Islamic Science Rediscovered Exhibition made its Asian debut at the Science Centre, showcasing the works of Muslim scholars in Science, Mathematics and Technology. The exhibition highlighted important scientific and technological advances made during the Golden Age of Islam (7th – 17th Centuries), drawing much attention to the multicultural roots of modern science and technology.

Among many interesting exhibits were “The Greatest Explorers”, which showcased Muslim Chinese mariner eunuch Admiral Zheng who travelled to Siam, Saudi Arabia and Somalia, and “Medical Discoveries”, which featured 14th Century Islamic scientists establishing efficient public hospitals, and Islamic medical pioneer, Al-Nafis who discovered the pulmonary-heart blood circulation system in 1284.



CANDY UNWRAPPED

Candy Unwrapped features interactive exhibits that help to uncover the surprising biology, chemistry, physiology and psychology behind the sweet sticky world of candy.

Highlight exhibits include the Taste Bud Tango, a giant tongue that teaches visitors all about taste buds, the Energy Burn exhibit which reveals how much work is needed to burn off a single sugar cube on a pedal bicycle and the Extreme exhibit, a display featuring candies from the 40's to the 90's that showcases the rich history and cultural diversity of candy.



QUIRKY

Quirky is a new exhibition of wacky inventions. From weird musical instruments to foam lighter than a feather that can carry a brick, these fascinating inventions will make visitors think and question what they believe.



METEORITES

On 15 February 2013, the Chelyabinsk meteorite landing in Russia raised both curiosity and fear among people. In timely fashion, the Science Centre launched a meteorites exhibition to share knowledge about meteors, meteorites and asteroids, as well as dispel the myths surrounding meteorite impact and near misses.



BIORHYTHM

Biorhythm engaged visitors to experience and explore the relationship between music and the body, merging science and arts through a series of highly interactive exhibits.

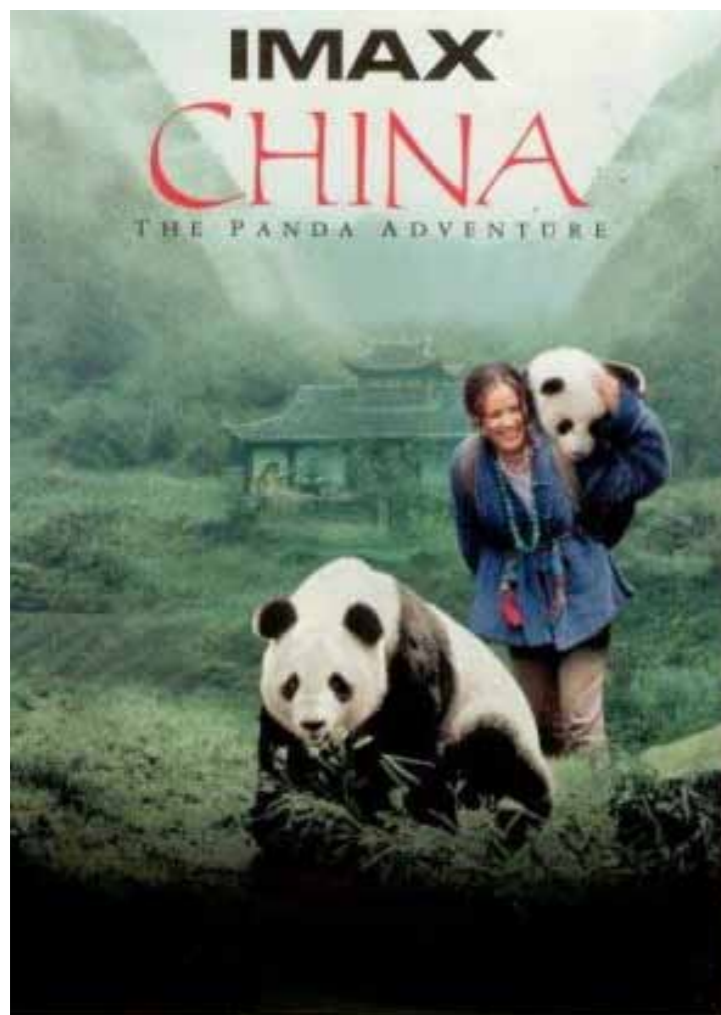
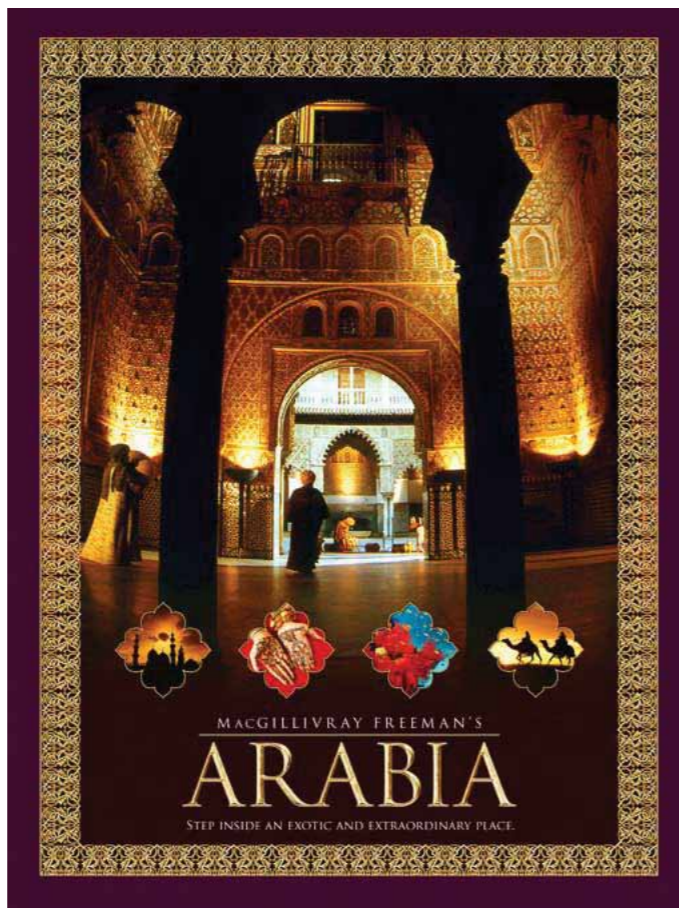
Visitors explored the natural forces that drive one to sing, strum, drum, dance and the scientific basis of whistling, humming and toe-tapping through a bazaar of unique sonic experiences, installations, experiments and performances from musicians, engineers and neuroscientists from around the world.

OMNI-THEATRE

With a seamless dome screen, crystal clear images and surround sound effects, the Omni-Theatre presents a unique experience like no other.

Arabia ▶

documents a story of an Arabian film-making student as he returns home from a Chicago university to make a film about his native culture. Discover the roots of Arabia's ancient traditions, learn how Arabian society has developed through history and witness the Hajj, the largest gathering of people on Earth.



◀ **China: The Panda Adventure** tells the true story of a fiercely independent woman who travels to China to achieve her late husband's dream of bringing the first live Giant Panda to America. Travelling through the splendour of 1936 China, audiences are taken on a journey into the wild to see pandas in their natural habitat and learn about the serious threat posed by poachers.



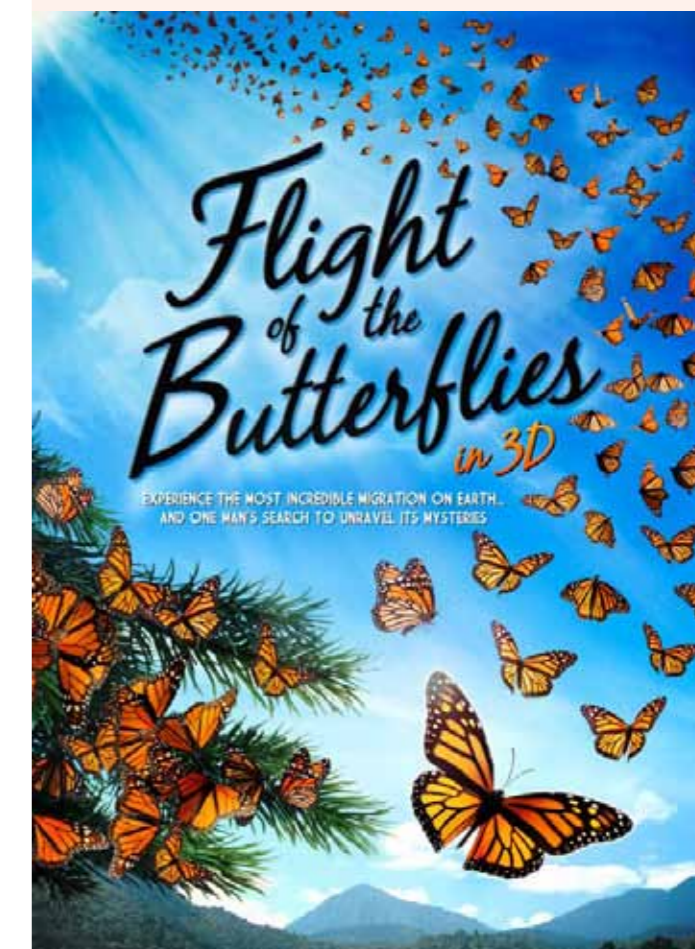
▲ **Ring of Fire** brings to light the deadly threats of active volcanoes around the world. The documentary features footage of the eruption of Mt. St Helens, as well as the discovery of a new volcano in Chile and how residents of the Japanese city of Sakurajima prepare for such natural disasters.



◀ **To the Arctic** brings audiences on an extraordinary journey with a mother polar bear and her twin cubs as they navigate the changing Arctic wilderness they call home. Viewers get up close and personal with this polar bear family's struggle to survive in extreme conditions.



▼ **Flight of the Butterflies** is an adventure story about the great migration of the Monarch butterflies, the most incredible migration on Earth. The film follows Dana, a Monarch butterfly as she makes her perilous journey from Mexico to Canada and unveils the discovery behind the Monarchs' epic journey for reproduction.



Science Outreach and Competitions



Singapore Science and Engineering Fair

The Singapore Science and Engineering Fair this year attracted a whopping 605 online project submissions. The research projects were carried out by 1,227 students, of which 191 students were awarded prizes. This year, a new "SSEF Special Award" was also introduced in recognition of students who demonstrated outstanding initiative, resourcefulness and resilience. The students were nominated by the judges during the final judging round of the competition. A team and two individual projects were selected to represent Singapore at the prestigious INTEL International Science and Engineering Fair in the USA. The Singapore students clinched three prestigious awards at ISEF 2012.



A*STAR Talent Search

The A*STAR Talent Search (ATS) Award Ceremony celebrated the achievements made by aspiring young scientists. Eight ATS finalists were selected from 530 participants to receive awards for their research projects. The ATS finalists had the opportunity to pick the brains of Chief Judge, Professor Erwin Neher, 1991 Nobel Prize Winner for Physiology or Medicine.

Science In The Mall

Back by popular demand, "X-ploring Dinosaurs!" featured animatronics dinosaurs that allowed visitors not only a chance to get up close and personal with the gigantic animals but also engage through various hands-on workshops, stage games and science shows. Held at Plaza Singapura in May, the 10-day event attracted more than 12,000 visitors.



Science Buskers Festival

276 participants showcased their talent at the fifth annual Science Buskers Festival. Each finalist performed a five-minute show-and-tell before a 500-strong audience. Sci-Fi Girls from Bukit View Primary School took the championship prize. All winners were offered a one-year renewable Science Centre Contract to perform at events for the Science Centre.



Tan Kah Kee Young Inventors' Award

This year's competition saw many inventors from the primary section emerge winners, including sisters Emily Yue, 11, and Esther Yue, 9, who invented a device that ensures easy and accurate application of eye drops. River Valley High School bagged the School Award with a record 10 winning entries. A total of 64 entries were awarded prizes, given out by Mr. Lawrence Wong, Minister of State for Defence and Education.



Sony Creative Science Award

Singapore's longest standing toy-making competition was greeted with its highest ever participation, as it celebrated 15 years of creativity and innovation by young children. Primary school students from over 104 schools brought their creativity to life through more than 4,000 unique toys, including dream toys they wanted to bring along on a holiday. Seven young toy inventors topped the competition and clinched the coveted educational trip to Tokyo.



Shell Singapore Youth Science Festival

The 35th Shell Singapore Youth Science Festival created awareness and fostered interest in sustainable energy, in line with 2012 being the International Year of Sustainable Energy. The highlight event, the Shell Science Fair, saw more than 260 youths presenting sustainable energy projects. The event was graced by Prof. Tan Tin Wee of NUS as the guest of honour.



Singapore Science Festival

Yet another highlight was the STAR Lecture. Held for the first time in Singapore, the famous UK Royal Institution lecture featured Professor Bruce Hood, who engaged more than 1,500 youths to unravel how the brain works and its relationship to human responses and behaviour. The concluding highlight events for the festival included the inaugural Singapore Mini Maker Faire and Popsticks Mass Activity, of which the latter was graced by Ms. Grace Fu, Minister in the Prime Minister's Office, Second Minister for Foreign Affairs and Second Minister for the Environment and Water Resources.



Singapore Amazing Flying Machine Competition

Singapore's largest flying machine competition took off once again with 333 teams using their talents to outbuild and outfly their competitors. A new age bracket for students 12 years old and above was introduced in the paper plane category. Competitors demonstrated the abilities of their inventions, including flying a paper plane through six hoops and even a wacky creation of a Psy-inspired flying machine!



National Junior Robotics Competition

The 14th National Junior Robotics Competition welcomed more than 3,000 participants in its first Olympic-themed competition. Students created robots that competed in 14 different sporting events, including fencing, basketball and even swimming. Top prize went to team Untitled from Hwa Chong Institution, who represented Singapore at the World Robotics Olympiad in Malaysia.



Amazing Science-X Challenge

Returning for its fourth edition, the Amazing Science-X Challenge saw a record number of entries this year, with over 150 teams competing to have their own exhibits displayed at the Science Centre. 18 new schools joined the competition this year, including international schools like Yuvabharathi and United World College of Southeast Asia. The entries showcased students creating their own physical science exhibits with refreshing perspectives on magnetism, electricity and motion.



First Tech Challenge

Over 200 students participated in the First Tech Challenge Singapore, a one-of-its-kind robotics competition. Teams formed alliances and developed strategies with other teams to compete in a sports-like game model. While competing, core values such as cooperation and gracious professionalism were conscientiously promoted and encouraged.

Education and Learning Resources



New Educational Programmes

As part of the educational programmes for families, a new taskforce was established this year to focus on organising and facilitating activities through various thematic workshops. A slew of new educational programmes were introduced to spark students' passion for science and technology. Ten new workshops were also introduced during the year. These attracted more than 250 participants, mainly families with children enjoying the various hands-on activities and gallery-based programmes among others.



One highly popular programme for schools that was rolled out for the first time, was the "Sky Greens – Science Centre Learning Journey", aimed at helping secondary school students understand the significance of green farming and self-sufficient food production. More than 500 students and teachers participated in engaging activities at the Centre and also toured the Sky Greens learning facility.

Astronomy

The Science Centre welcomed over 6,800 participants to its Observatory programmes this year. Students and public members were treated to engaging events such as planetarium shows, talks and forums by local and regional guest speakers.

We hosted Southeast Asia's first ILOA (International Lunar Observatory Association) Galaxy Forum which was organised by the Centre in conjunction with The Astronomical Society of Singapore (TASOS) and held at the Observatory Green. Over 3,000 visitors gathered at the Centre to view a rare astronomical phenomenon – Venus in Transit.



Revamped Young Scientist Cards Scheme

The evergreen Young Scientist Cards scheme was revamped this year to take into account new trends in science education. Students can look forward to more hands-on tasks that these 17 types of science cards involve. New elements have also been included to encourage parents to participate with their children in discovering science together.



STaR Kits

STaR Kits (Science Teaching and Resource Kits), a teaching and learning resource for primary and secondary school level, are effective tools to promote inquiry-based learning. Teachers can use these tools to enable students to visualise, share and communicate information effectively based on the science concepts and ideas taught during curriculum hours. The Light Kit, a new addition to the series, developed in collaboration with Greendale Primary School, help students understand the relation between light and shadows in an interesting and engaging manner.

New Let's Explore Kits

Science Centre launched a new series of science learning tools called "Let's Explore" kits. The specially designed science kits relating to Magnetism, Electricity and Chemistry use the inquiry-based approach to help children explore and learn science in school or at home. Parents/teachers can facilitate learning with the help of the guide books provided.



Community



Sub-Board Committees

Executive Committee

Chairman: Ms. Tan Yen Yen
 Members: Mr. Quek Gim Pew
 Mr. Phillip Tan
 Dr. Goh Chong Chia
 Mr. Sin Kim Ho
 Mr. Lee Ark Boon
 Ms. Shirley Wong

Finance and Investment Committee

Chairman: Mr. Quek Gim Pew
 Members: Mr. Martijn van Koten
 Prof. Paul Teng
 Dr. Goh Chong Chia
 Mr. Kenneth Tan

Audit Committee

Chairman: Mr. Phillip Tan
 Members: Ms. Ang Ee Luang
 Mrs. Tan Mui Hwoon
 Mr. Sin Kim Ho
 Mr. Bruce Poh

Advancement Committee

Chairman: Ms. Shirley Wong
 Members: Prof. Paul Teng
 Ms. Melissa Ow
 Mr. Eiji Koike
 Mr. Zaqy Mohamad
 Mr. Lim Eng Hwee
 Mr. Kenneth Tan

Project Committees

1. A*STAR Talent Search 2012 Steering Committee
2. Singapore Science & Engineering Fair 2012 Working Committee
3. Singapore Science Festival 2012 Steering Committee
4. Science Buskers Festival 2012 Advisory Committee
5. Sony Creative Science Award 2012 Organising Committee
6. Shell Singapore Youth Science Festival 2012 Organising Committee
7. CRADLE 2012 Steering Committee
8. SAYES 2012 Steering Committee

Community and Support

Volunteer Programme

The Science Centre saw more than 3,000 student volunteers assisting with visitor interactions and activity booths. Many new volunteers came on board, with approximately 16,882 hours clocked. In addition, as part of the Centre's commitment to the Youth Science Movement, a new "STEP Sunburst Science Educators" programme was launched for students aged 13 and above, with the aim of increasing interest and knowledge in a variety of STEM topics. 174 students from 10 schools were recruited, and they contributed more than 2,500 hours to interactions with fellow students.



Corporate Social Responsibility

In 2012, various initiatives were taken to support the cause for a green environment. The Centre organised a Jurong Lake Cleanup and six nature trails to learn about the flora and fauna along the Lake. SCS also participated in the World Water Day 2012 which involved a mass water collection and filtration exercise. This was organised by PUB.

The Centre's adopted charity, Metta School – a special education school for children with mild intellectual disability and autism spectrum disorders, received \$5,000 through the collection from two Science Centre exhibits. In addition, the Centre has also been working with the Northeast CDC to offer DNA workshops to children from lower income families at subsidised rates for the past few years.



List of Sponsors

Company Name	
1	Abbott Laboratories
2	Agency for Science, Technology & Research
3	Asia Pacific Resources International Ltd
4	Beecham Pharmaceuticals Pte Ltd
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6	Bruns B.V.
7	Cityneon Events Pte Ltd
8	DSO National Laboratories
9	Earth Observatory of Singapore
10	Eastman Chemical Company
11	Exhibits. NL B.V.
12	GE Healthcare ASEAN
13	Haw Par Corporation Ltd
14	Imagine Exhibitions Inc
15	Intel Mobile Communications Southeast Asia Pte Ltd
16	Kingsmen Exhibits Pte Ltd
17	Lee Foundation
18	Media Development Authority
19	Nanyang Polytechnic
20	Nanyang Technological University
21	National Instruments Singapore (Pte) Ltd
22	NIPSEA Pte Ltd
23	P'ART1 Design Pte Ltd
24	Pilot Pen (S) Pte Ltd
25	Rolls-Royce Singapore Pte Ltd
26	Shell Eastern Petroleum Pte Ltd
27	Singapore Association For the Advancement of Science
28	Singapore Totalisator Board
29	Singapore Technologies Aerospace Ltd
30	Singapore Technologies Engineering Ltd
31	Singapore Technologies Kinetics Ltd
32	Singapore Technologies Endowment Programme
33	Sony Electronics Asia Pacific Pte Ltd
34	Teo Chin Fook

Sponsorship Fund

Science Centre Board Sponsorship Fund

Programmes / Activities

The principal activities of the Science Centre Board Sponsorship Fund are to:

- promote interest, learning and creativity in science and technology through imaginative and enjoyable experience and contribute to the nation's development of its human resource;
- conduct supplementary science classes, lectures, demonstrations and workshops to complement the school science syllabi;
- produce and publish scientific literature in the form of magazines and guidebooks;
- organise activities and programmes for targeted and general audiences so as to bring science closer to the people; and
- screen planetarium programmes and OMNIMAX films to students and general public, using state-of-the-art audio-visual projection systems.

Board Members

Chairman	Ms. Tan Yen Yen		
Deputy Chairman	Mr. Quek Gim Pew		
Members	Dr. Goh Chong Chia Mr. Lee Ark Boon Mr. Sin Kim Ho Mr. Lim Eng Hwee Mr. Eiji Koike	Mr. Phillip Tan Mrs. Tan Mui Hwoon Ms. Ang Ee Luang Mr. Zaqy Mohamad Mr. Bruce Poh Geok Hua	Mr. Martijn van Koten Prof. Paul Teng Ms. Melissa Ow Ms. Shirley Wong Mr. Kenneth Tan

Key Executive Management

Chief Executive	A/Prof. Lim Tit Meng
Asst Chief Executive, Projects & Exhibitions and Advancement Office	Mr. Clarence Sirisena
Senior Director, Education Programmes	Mrs. Anne Dhanaraj
Quality Service Manager	Mr. Michael Chay Hong Kan

Conflict of Interest Policy

The Science Centre Board has implemented a conflict of interest policy that covers both the Board members and the staff. The document procedures require the Board members and staff to make a declaration of potential or actual conflict of interest at the start of their term of office or at the start of their employment of service respectively. Thereafter, Board members are required to provide updates whenever there are changes to the original declaration, and staff are required to make such declarations on an annual basis.

Reserves policy is not applicable as funds received are used for their intended purposes.

Distinguished Visitors

April 2012

Dr. Eun Chol Choi, Director General of Gwacheon National Science Museum, South Korea

Mr. Michael John Gorman, Head of Science Gallery, Ireland

Prof. Erwin Neher, 1991 Nobel Prize winner in Physiology/ Medicine

May 2012

Mr. Lawrence Wong, Minister of State, Ministry of Defence, and Ministry of Education

Ms. Grace Fu, Minister in the Prime Minister's Office, Second Minister for the Environment and Water Resources and Second Minister for Foreign Affairs and Member of Parliament for Yuhua SMC

Ms. Li Hongming, Vice President, and delegation from Shanghai Association for Science and Technology, China

Ms. Shao Guohua, Deputy Director of Shanghai Demonstration Technology Center for Science Popularization, China

Ms. Zhang Wei, Deputy Director of Shanghai Science Popularization Service Center, China

June 2012

Mr. Heng Swee Keat, Minister for Education

July 2012

Delegation from Ministry of Energy, Thailand

Delegation from Chiang Mai University, Thailand

Mr. Heng Swee Keat, Minister for Education

August 2012

His Excellency Joe Hayes, Ambassador, the Republic of Ireland

Ms. Grace Fu, Minister in the Prime Minister's Office, Second Minister for the Environment and Water Resources and Second Minister for Foreign Affairs and Member of Parliament for Yuhua SMC

Mr. Teo Chee Hean, Deputy Prime Minister, Co-ordinating Minister for National Security, and Minister for Home Affairs, and Patron of Science Centre Singapore

Dr. Tan Kim Siew, Permanent Secretary for Defence Development, MINDEF

Prof. Bruce Hood, Director of the Bristol Cognitive Development Centre, United Kingdom

September 2012

Ms. Chan Lai Fung, Permanent Secretary for Education Policy, Ministry of Education

Dr. Amy Khor, Minister of State, Ministry of Health and Ministry of Manpower, Mayor of South West District

Mr. Gan Kim Yong, Minister for Health

Dr. Kasama Varavarn, Permanent Secretary for Education, Ministry of Education, and delegation from Bansomdejchaopraya Rajabhat University (BSRU), Thailand

October 2012

Mr. Peter Ong, Head of Civil Service, Permanent Secretary for Special Duties

Ms. Yong Ying-I, Permanent Secretary for Public Service Division and National Research & Development

Mr. Chan Heng Kee, Permanent Secretary, Ministry of Social and Family Development

Dr. Beh Swan Gin, Permanent Secretary, Ministry of Law

Dr. Ng Eng Hen, Minister for Defence

Mr. Jiajun Xu and Ms. Xiuli Liu, Division Directors of China Science and Technology Exchange Center, China

Mr. Wei Yuan, Deputy Director of Tianjin Institute of Scientific and Technical Information, China

November 2012

Mr. Heng Swee Kiat, Minister for Education

Mr. Darrel Ching, First Secretary, Commercial Attaché, U.S. Commercial Service, American Embassy, Singapore

RADM Ng Chee Peng, Chief of Navy, MINDEF

Mr. Dong-Woon Sohn, Chief of Federation of Busan Institute of Science and Technology, South Korea

Mr. Seung-Jin Lee, Chief of LG Science Hall, Seoul, South Korea

Mr. Min-Jae Oh, Chief of Jeollanamdo Institute of Science Education, South Korea

Mr. Cheol-oh Park, Chief of Busan Marine Natural History Museum, South Korea

Delegation of Vice Ministers from Cambodia, Laos, Myanmar and Vietnam

Dr. Janet Carlson, Executive Director of Biological Science, Curriculum Study, USA

A/Prof. Benny Yung Hin Wai, Head of Division of Science, Maths & Computing, Faculty of Education, University of Hong Kong, China

January 2013

Ms. Trish Tierney, Executive Director, and Ms. Naoko Dunnigan, Director, Institute of International Education, USA

Mr. Akira Fukui, Chief of Permanent Exhibition and Public Relations Division, National Museum of Nature and Science, Japan

Ms. Hea-Kyung Lim, Mayor of Education, Busan Metropolitan City Office of Education (BMCOE), Korea

Mr. Kim Daesung, Director of Career Counselling Centre, Busan Metropolitan City Office of Education (BMCOE), Korea

February 2013

Mr. Uwe Morawetz, Chairman of International Peace Foundation

Mr. Kengo Ieda, Director of Toyohashi Museum of Natural Resources, Japan

Mr. Masami Onodera, Assistant Director, and Ms. Mizuho Sasaki, Chief Curator, Sendai Astronomical Observatory, Japan

Delegation from Miraikan, Japan

Mr. Kiyoshi Takahashim, Chairman of Pilot Corporation, Japan

Mr. Hiromoto Watanabe, President of Pilot Corporation, Japan

March 2013

Mr. Chan Chun Sing, Acting Minister for Family & Social Development and Senior Minister of State, Ministry of Defence

Mr. Steve Durst, Founder and Director of International Lunar Observatory Association, Hawaii, USA

Delegation from Beijing-Hong Kong Academic Exchange Centre, China

Delegation from National Council of Science Museums (NCSM), India



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