



REACHING OUT

To the Minds of Millions

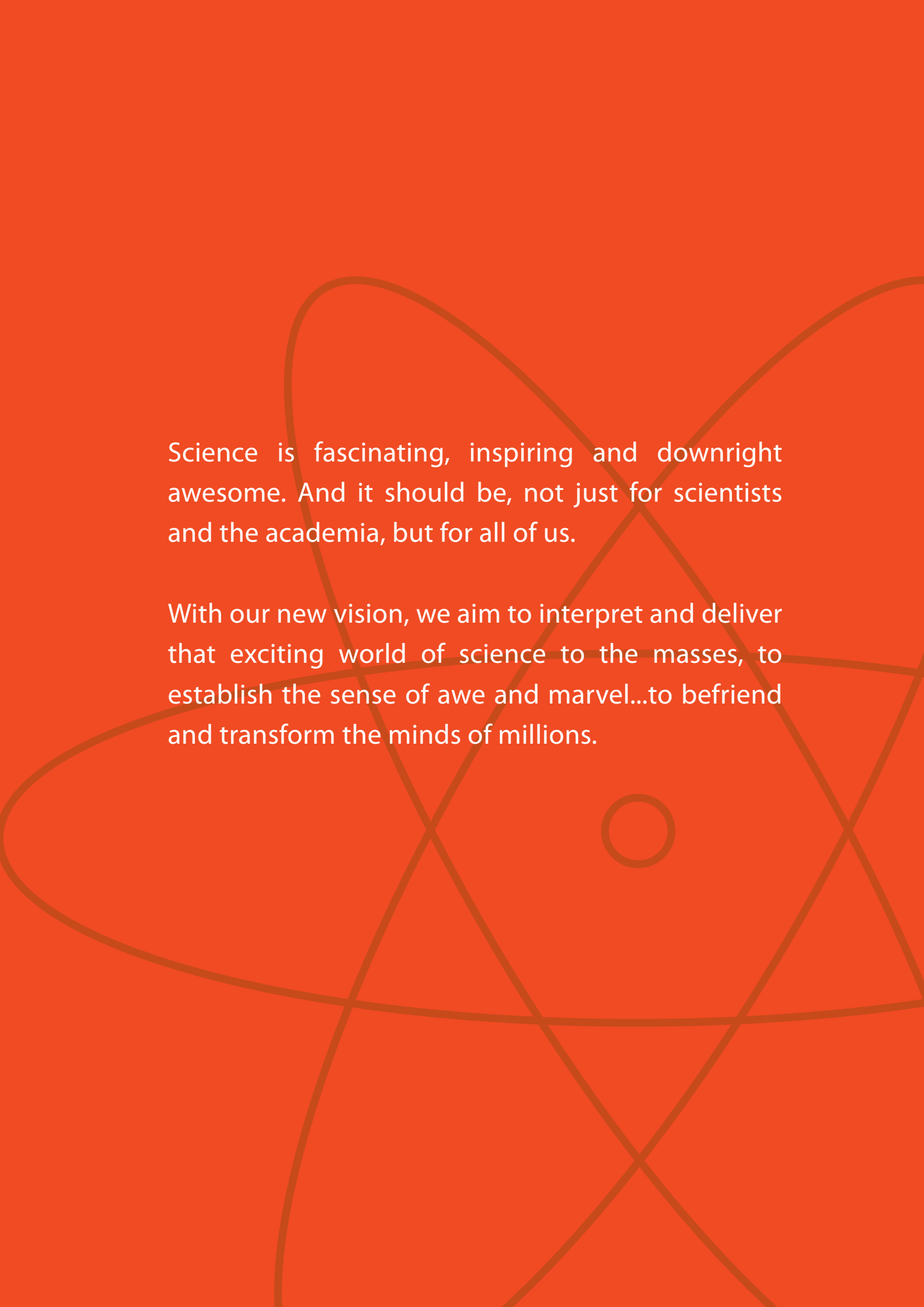
ANNUAL REPORT 2009 / 2010





CONTENTS

Chairman's Review	6
Board Members	8
Management Team	10
Highlights of FY2009	16
Key Performance Indicators	18
Events Timeline	22
Exhibitions, Projects and Competitions	24
IMAX Movies	33
Science Education and Promotion Programmes	36
Community & Support	46
Committees	48



Science is fascinating, inspiring and downright awesome. And it should be, not just for scientists and the academia, but for all of us.

With our new vision, we aim to interpret and deliver that exciting world of science to the masses, to establish the sense of awe and marvel...to befriend and transform the minds of millions.

Leadership and enriched learning are indispensable to each other
- John F. Kennedy

Leading the way to a successful education in Science and **enriching** lives is what we do.

Did you know?

The Science Centre was born out of a governmental initiative to transfer the scientific-related exhibits from the National Museum of Singapore to a separate specialized institution.



Colossus of Rhodes

Fracto
Maudons
"Blas
The Three
Scies
(24 years)

85. Our
with
2006



WELCOMING OUR NEW CHIEF EXECUTIVE

We warmly welcome Associate Professor Lim Tit Meng back to the Science Centre Singapore as the Centre's sixth Chief Executive. In his previous appointment as Assistant Chief Executive, Education Programmes, he played a pivotal role in planning and implementing many new initiatives particularly beneficial to students and teachers.

At the same time, we would like to take this occasion to acknowledge Dr Chew Tuan Chiong for his unwavering dedication and commitment in serving the Science Centre for 14 years. We are deeply appreciative of his leadership at the Centre and wish him every success in his new career.

A MILESTONE YEAR FOR SCIENCE CENTRE VISITATIONS

I report with pride that Science Centre has achieved yet another milestone year in terms of visitorship. The Centre and its sister attractions attracted a total of 1.55 million visitors in 2009. At the same time, our Visitor Experience Index, a measure of visitor satisfaction, improved to 4.22 from last year's 4.15. The significant accomplishment was achieved by the dedicated Science Centre team whose focus has always been on building a comprehensive service culture.

INSPIRING EXHIBITIONS

This year we launched two major temporary blockbuster exhibitions, Da Vinci - The Genius and Body Worlds: The Original & The Cycle of Life. Da Vinci - The Genius opened at the Centre in May and attracted over 100,000 visitors who had the opportunity to view the most comprehensive exhibition ever put together on Leonardo Da Vinci. Following that, we launched Body Worlds in November with even greater success, which attracted over 166,000 visitors. It also helped the Centre win the "Best Exhibition Award" in Time Out's Best of Singapore Awards 2010.

In true innovative fashion, the Centre launched two new permanent exhibitions – Mathematics Everywhere & Everyday and Sound. Both exhibitions were specifically developed to fascinate and educate visitors through fun exhibits and engaging hands-on activities on the science behind mathematics and sound.

ENGAGING EVENTS

Year 2009 was the International Year of Astronomy (IYA). The Science Centre together with The Astronomical Society of Singapore (TASOS) organised a myriad of events and competitions to help raise the public's interest in astronomy. The events brought together a staggering 119,700 participants in all. Students, families and the public were able to gain deeper insights into astronomy through engaging talks in astronomy, interactive activities and insightful documentaries.

LONG-STANDING PARTNERSHIPS

Over the years, the Science Centre has built many strong and invaluable partnerships, which have greatly benefited students as well as the public.

Our longest standing partnership is with the Shell Group of Companies in Singapore. It has been a wonderfully fruitful 32 years of collaboration on the annual Shell Singapore Youth Science Festival. The festival has grown from strength to strength through the years with over 60,000 students and science educators participating in the Festival annually.

Another long standing partner is Sony, with whom we have collaborated for the past 13 years in organising the Sony Creative Science Award. The highly popular national toy-making competition has been widely adopted by schools as school-based competitions and winning toys are then submitted for the national competition. This year, more than 3,400 entries from 101 schools took part in the national competition.

The Agency for Science, Technology and Research (A*STAR) has also been a staunch supporter of our outreach programmes to schools. Our collaborations are many, including the National Junior Robotics Competition (NJRC) and Singapore Science and Engineering Fair (SSEF).

We are most thankful for all the support our partners have given us over the years and we look forward to working with more partners.

INTERNATIONAL COLLABORATION

On the international front, we partnered Abbott this year to launch creative science programmes for young children and families to learn more about science and innovation through hands-on experiments and activities led by scientists from Abbott. Singapore is the first Asian country to introduce these programmes, following successful launches of similar programmes in the USA, Puerto Rico and Ireland.

AWARDS & ACCOLADES

Apart from the "Best Exhibition" award we won for Body Worlds: The Original & The Cycle of Life Exhibition, I am happy to report that the Science Centre has achieved the Singapore Quality Class and Singapore Service Class certifications.

I am also delighted to recognise that the Centre had clinched a total of 31 winners, 4 of which were Star Award winners, in the Excellent Service Award (EXSA) 2009. A Centre staff, Mrs Savita Sharma, was one of the finalists in the highest award category, the EXSA Superstar. Mrs Sharma was also conferred the National Day Efficiency Medal this year.

I would also like to commend Madam Halimah Rahaman and Julie Asiah Abdullah, visitor services assistants, for being among the finalists in the service category of the inaugural Singapore Experience Awards: Visitor Attraction Sector.

THE YEAR AHEAD

With every new year come new challenges. A positive attitude, strong teamwork and a strong commitment to our mission and vision will carry us forward in our pursuit to make the Science Centre a unique organisation. I am sure that through the strong leadership provided by the new Chief Executive, A/Prof Lim, the Science Centre team will rise to the challenge to deliver the wonderment of science to our visitors.

I sincerely thank my fellow board members for their contributions and advice, as well as the Science Centre management team and all staff for a sterling year. I would also like to express my gratitude to all our partners for their continual support.

Looking forward to another good year ahead!



Wee Heng Tin
Chairman
Science Centre Board



Mr Wee Heng Tin
Chairman



Mr Quek Gim Pew
Deputy Chairman



Mr Chia Mia Chiang



Dr Goh Chong Chia



Dr Tan Hai Meng



Mr Phillip Tan



A/Prof Chia Tet Fatt



Mr Bob Koh Chin Nguang





Mr Lee Ark Boon



**A/Prof Mansoor
Bin Abdul Jalil**



Mr Timothy Sebastian



Mr Howard Shaw



Mr Alex Siow



Mdm Tan Lay Hong



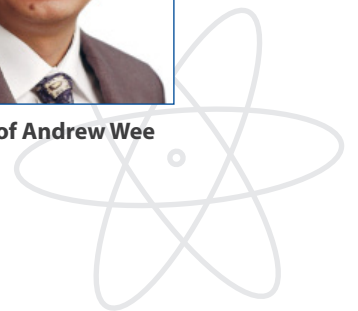
Mrs Tan Mui Hwoon



Mr Martijn van Koten



Prof Andrew Wee





MANAGEMENT TEAM



Mr Clarence Sirisena
Assistant Chief Executive
Projects & Exhibitions

A/Prof Lim Tit Meng
Chief Executive

Dr Lua Eng Keong
Senior Director
Education Programmes



Ms Cham Lee Fin
Director
Finance & Administration

Mr Michael Chay
Director
Marketing & Sales

Mrs Veronica Heng Swee Lan
Director
Operations

Ms Wendy Cheong
Director
Human Resources

Dr Andrew Giger
Director
Research & Web Outreach



MANAGEMENT TEAM



Mr Andrew Oh Boon Keng
Director
Special Projects




Mr Clarence Sirisena
Assistant Chief Executive
Projects & Exhibitions



Mr Daniel Tan Teck Meng
Director
Exhibitions



Mr Ross Leo Teh Lin
Deputy Director
Travelling Exhibitions



Ms Anne Dhanaraj
Director
Life Sciences &
Publications

Mrs Ong Me Lan
Director
Physical Sciences

Dr Lua Eng Keong
Senior Director
Education Programmes

Ms Kamaria Bte Abdul Ghani
Director
Science Upstream

I always need a couple of highlights to really spark the passion for a **unique** project
- Lasse Hallstrom

We entertain and educate children and adults alike; intriguing them with **unique** experiences to spark their curiosity and bring out the fun-loving child within.

Did you know?

Science Centre Singapore's architecture was awarded through an architectural design competition. The winning architect chosen was Raymond Woo.



VISITORSHIP

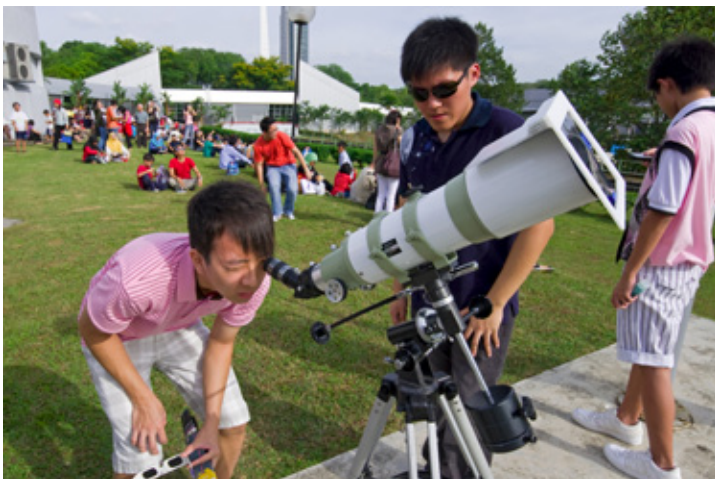
The Science Centre celebrated another milestone this year, receiving 1.55 million visitors to the Science Centre, Omni-Theatre and Snow City. The Centre's Visitor Experience Index also improved this year, moving up from a rating of 4.15 to a rating of 4.22.

The two blockbuster exhibitions, Da Vinci – The Genius and Body Worlds: The Original & The Cycle of Life, proved extremely popular with students and the public and drew a combined 266,000 visitors to the Centre. The International Year of Astronomy (IYA) 2009 was another huge draw for visitors. The year-long events pulled in a crowd totaling 119,722 visitors.



INTERNATIONAL YEAR OF ASTRONOMY 2009

Working in partnership with The Astronomical Society of Singapore (TASOS), the Science Centre organised a myriad of events to spark people's interest in astronomy. On offer were stargazing activities, astronomy talks, international performances and a host of other astronomy-related activities. The Festival of the Stars cum Leonids Meteor Shower event alone drew a crowd of more than 10,000 people.



LAUNCH OF NEW GUIDEBOOKS

The Science Centre launched two new guidebooks – Mosses of Singapore and Sponges of Singapore in January. Both guidebooks contain a wealth of information and knowledge of the local fauna and flora. In conjunction with the launch, the Centre also kicked off the International Year of Biodiversity 2010 to celebrate biodiversity in nature and people.



NEW INITIATIVES

The Research Exposure Programme presented A*STAR scholars with the opportunity to engage in science related activities that provided them with insights into real-world science research. About 200 scholars participated in talks, laboratory sessions and a visit to the Body Worlds exhibition.

Quirky Science, a 13-part science documentary series, is another new initiative by the Centre. Featuring science discoveries through historical re-enactments, demonstrations and computer graphics, the series is developed in partnership with the Media Development Authority and Film Formations Pte Ltd.



AWARDS & RECOGNITION

The Centre received the Singapore Quality Class and Singapore Service Class certifications this year, renewing its commitment to providing quality service to visitors. In addition, 31 staff members achieved the Excellent Service Award (EXSA) with Mrs Savita Sharma coming in as a finalist in the EXSA Superstar category. She was also conferred the National Day Efficiency Medal.

Two other staff members, Madam Halimah Rahman and Julie Asiah Abdullah, also emerged finalists in the inaugural Singapore Experience Awards.

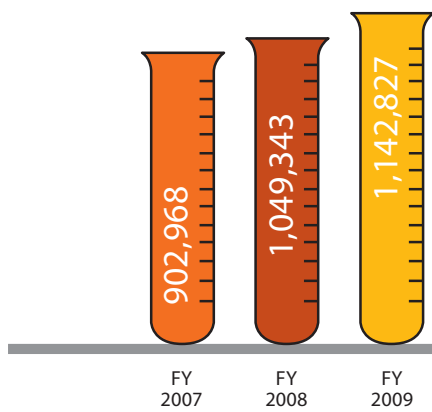
Last but not least, the Centre won the “Best Exhibition Award” in Time Out’s Best of Singapore Awards 2010 for the Body Worlds: The Original & The Cycle of Life exhibition.



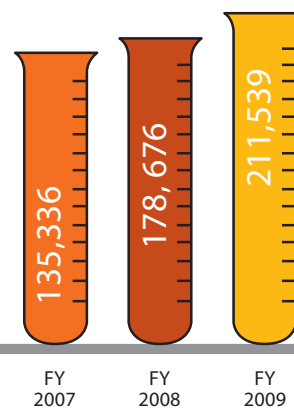
KEY PERFORMANCE INDICATORS

VISITORS

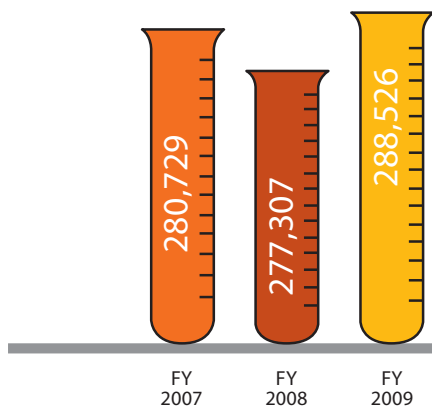
NO. OF VISITORS TO SCIENCE CENTRE



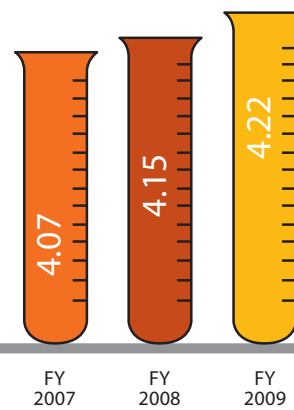
NO. OF STUDENTS WHO ATTENDED SCIENCE ENRICHMENT PROGRAMMES



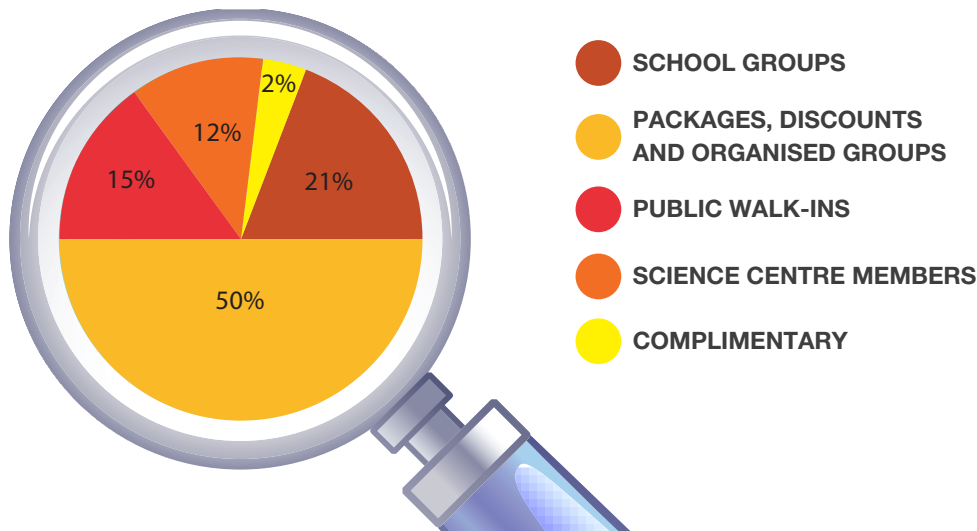
NO. OF VISITORS TO THE OMNI-THEATRE



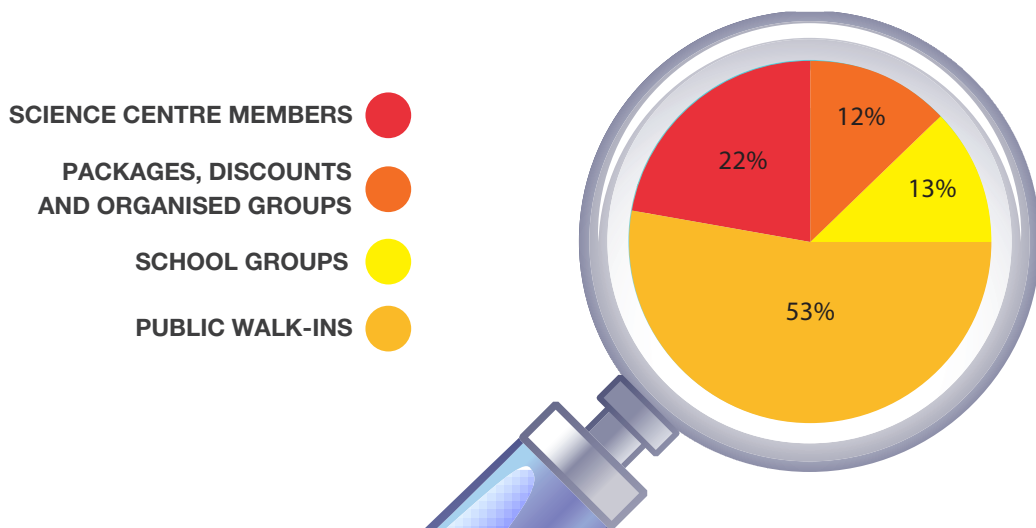
VISITOR EXPERIENCE INDEX



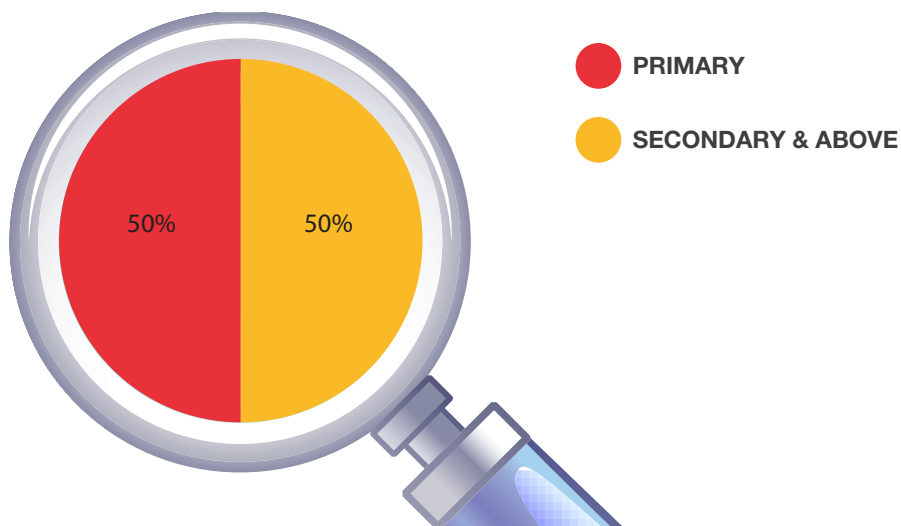
SCIENCE CENTRE SINGAPORE VISITORSHIP FOR YEAR 2009/2010



OMNI-THEATRE VISITORSHIP FOR YEAR 2009/2010



SCIENCE ENRICHMENT PROGRAMMES VISITORSHIP FOR YEAR 2009/2010



Every **relevant** learning moment
and event of every man's life on
earth plants something in his soul
- Thomas Merton

The numerous special events and
exhibitions we have showcased over
the years, establishes our promise
to always stay current and **relevant**
in our goal to inspire and foster
learning.

Did you know?

Science Centre Singapore's Omni-Theatre measures 23m across and stands five stories high, providing visitors with a truly immersive movie experience.





MAY

- ✧ Launch of Da Vinci – The Genius Exhibition
- ✧ Launch of Space Station and Van Gogh IMAX Movies
- ✧ International Year of Astronomy 2009 Sidewalk Astronomy Carnival
- ✧ Tan Kah Kee Young Inventors' Award
- ✧ Sony Creative Science Award
- ✧ 32nd Shell Singapore Youth Science Festival



AUGUST

- ✧ Singapore Amazing Machine Competition
- ✧ National Infocomm Competition X-Site
- ✧ GeneFest
- ✧ science.09
- ✧ National Science Challenge

APRIL

- ✧ A*STAR Talent Search



JUNE

- ✧ Science in the Mall

JULY

- ✧ Science Buskers Festival
- ✧ Solar Eclipse Viewing at the Observatory





SEPTEMBER

- ⊗ Launch of Science of F1 Exhibition
- ⊗ Amazing Science-X Challenge
- ⊗ National Junior Robotics Competition
- ⊗ Launch of Bears IMAX Movie

OCTOBER

- ⊗ Launch of Body Worlds: The Original & The Cycle of Life Exhibition
- ⊗ International Year of Astronomy 2009 Mid Autumn Festival



NOVEMBER

- ⊗ Launch of Under the Sea IMAX Movie
- ⊗ International Year of Astronomy 2009 Festival of the Stars
- ⊗ Science in the Mall

JANUARY 2010

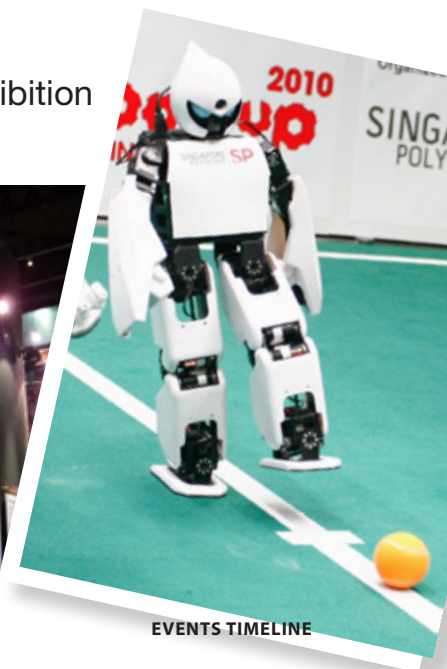
- ⊗ Launch of the Tsunami That Shook The World Exhibition
- ⊗ Solar Eclipse Viewing at Observatory

MARCH 2010

- ⊗ Launch of RoboCup SG League
- ⊗ Singapore Amazing Flying Machine Competition
- ⊗ Launch of Forces of Nature IMAX Movie
- ⊗ Singapore Science and Engineering Fair
- ⊗ MindFest

DECEMBER

- ⊗ Launch of Sound Exhibition





EXHIBITIONS, PROJECTS AND COMPETITIONS



DA VINCI – THE GENIUS EXHIBITION

The largest and most comprehensive travelling exhibition ever compiled on Leonardo Da Vinci, Da Vinci – The Genius, drew close to 100,000 visitors in the five months it was at the Centre. The exhibition featured some 188 exhibits with 65 full-scale machine inventions crafted from Da Vinci's personal codices (notebooks). Visitors were also treated to reproductions of Leonardo's most famous Renaissance art and three-dimensional interactive presentations offering unprecedented insights into his famous works. On the gala opening, President S R Nathan graced the Centre with his presence.

Da Vinci – The Genius was jointly presented by the Science Centre, Total Sports Association and Mediacorp, Vizpro.





BODY WORLDS: THE ORIGINAL & THE CYCLE OF LIFE

Body Worlds: The Original & The Cycle of Life Exhibition premiered in Asia for the first time at the Science Centre. Created by world-renowned Dr Gunther von Hagens, the exhibition featured over 200 authentic human and animal specimens preserved using the famous doctor's groundbreaking method of plastination.

The exhibition drew an overwhelming response from the public. More than 166,000 visitors thronged the exhibition. Mr Khaw Boon Wan, Minister for Health, and Mr Mah Bow Tan, Minister for National Development, were specially invited to attend the exhibition.

Body Worlds was jointly presented by the Science Centre, Mediacorp, Vizpro and Arts & Sciences AG.





EXHIBITIONS, PROJECTS AND COMPETITIONS

THE SOUND EXHIBITION

A new and exciting permanent exhibition made its home in the Centre in December. The Sound Exhibition features numerous interactive and “loud” exhibits that surely got the attention of our visitors. It was a journey of discovery for children and adults alike through the wonders of sound and the science behind it.



THE TSUNAMI THAT SHOOK THE WORLD EXHIBITION

In memory of the devastation wrought by the 2004 tsunami, this exhibition sought to help us understand, predict and better prepare for future disasters such as tsunamis and earthquakes. Visitors learnt about disaster detection and forecasting systems as well as predictive tools employed by today’s scientists to minimise the impact of these natural disasters.

The Tsunami That Shook The World Exhibition was developed in partnership with the Earth Observatory of Singapore.



SCIENCE OF F1 EXHIBITION

Behind the intense competition of man vs man and machine vs machine lies a whole world of the latest cutting edge technology and precise science essential to bringing the F1 races to life. Visitors were challenged to see if they had what it took to be an F1 driver with the many interactive exhibits simulating the fitness training of a F1 driver.

A photo exhibition of the 2008 Singapore Grand Prix was on display as well. Darren Heath, official F1 photographer, also gave a talk at the Centre to more than 100 visitors on the "Formula of Capturing Speed".

SINGAPORE AMAZING FLYING MACHINE COMPETITION (SAFMC) 2009

The Science Centre saw an array of flying contraptions take to the skies during the Singapore Amazing Flying Machine Competition (SAFMC) 2009.

Jointly organised by the Science Centre and DSO National Laboratories, SAFMC was enthusiastically participated by 200 teams from about 100 schools and organisations. Participants were encouraged to let their imagination take flight to design and build flying machines that could fly faster, higher and farther.

After two weeks of intense competitions, 48 teams emerged winners. A total of 78 prizes were awarded by Mr Teo Chee Hean, Deputy Prime Minister and Minister for Defence, at the awards presentation ceremony.



EXHIBITIONS, PROJECTS AND COMPETITIONS



SINGAPORE AMAZING MACHINE COMPETITION (SAMC) 2009

Students were challenged to build the ultimate amazing machine, one that would hoist up their school flag in as many distinct steps as possible. More than 160 teams submitted their amazing machines and 40 were selected for the finals.

Dr Tan Kim Siew, Permanent Secretary, Defence Development, Ministry of Defence, was guest-of-honour at the awards presentation ceremony. Winning schools included Unity Primary, NUS High School of Mathematics and Science, and Raffles Girls' School.

The ceremony also marked the close partnership between DSO and NUS High as both parties signed a Memorandum of Understanding (MOU) on collaborative initiatives to promote and support research in NUS High.

AMAZING SCIENCE-X CHALLENGE (ASXC) 2009

The search for Singapore's most scientific showcase was on at the inaugural Amazing Science-X Challenge (ASXC) 2009. The challenge: design and build creative exhibits that can best explain a physical scientific phenomenon. Twelve winning exhibits were then displayed at the Science Centre for two weeks.

Some 71 teams from 24 schools took part in the competition and teams from Pioneer Primary School, Rulang Primary School and Methodist Girls' School (Primary) came in tops. They were presented with their awards and prizes by Deputy Prime Minister and Minister for Defence, Mr Teo Chee Hean.



NATIONAL INFOCOMM CHALLENGE (NIC) X-SITE 2009

“Earth Fast Forward” was this year’s theme for NIC X-Site. Students were encouraged to imagine the future of Earth and interpret their creations through illustrations. In all, 76 teams consisting of 242 students from 33 schools participated in the digital design competition. NIC X-Site 2009 was jointly organised with the Infocomm Development Authority of Singapore.



NATIONAL JUNIOR ROBOTICS COMPETITION (NJRC) 2009

In its 11th year, the National Junior Robotics Competition (NJRC) has grown from strength to strength. Over the years, it has seen an outstanding turnout of more than 30,000 participants and 200,000 supporters.

This year, 600 teams participated to build the ultimate sporty robot. After many intensive rounds of competitions, Dynamic Robo from Lianhua Primary School, BearPGHS from Bukit Panjang Govt. High, and NUSH8 from NUS High School of Mathematics and Science, emerged champions.

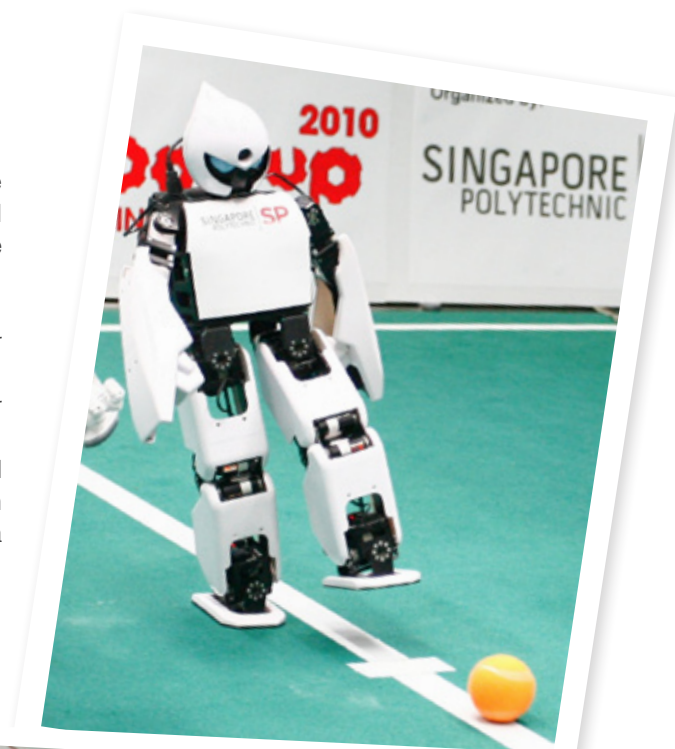


EXHIBITIONS, PROJECTS AND COMPETITIONS

ROBOCUP SINGAPORE LEAGUE

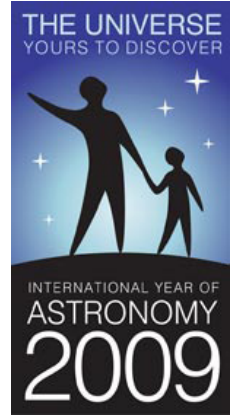
Robots playing against humans in the World Cup? That's the dream of the organizers of RoboCup. The competition encouraged participants to build robots that can play soccer, dance and execute a rescue mission.

A total of 339 participants making up 69 local teams and four international teams pitted their skills and robots against one another. Woodlands Ring Secondary School emerged winner in the Soccer competition while St Joseph's Institution Junior, Raffles Girls' Secondary, Pei Hwa Secondary and Admiralty Secondary emerged winners in the Dance competition. The Rescue competition championships went to MIT Robot Laboratory (Taipei) and Fu Hua Secondary.





EXHIBITIONS, PROJECTS AND COMPETITIONS



INTERNATIONAL YEAR OF ASTRONOMY (IYA) 2009

The Science Centre, in partnership with The Astronomical Society of Singapore (TASOS), celebrated the International Year of Astronomy (IYA) with a launch event where distinguished guest speaker, Professor Jocelyn Bell from the University of Oxford gave a talk on "What's Going On In The Universe". A newly revised edition of the "Sky Book for the Tropics" was also launched at the event. Additionally, TASOS announced a moon photography competition.

A year long line up of exciting and enriching programmes for students and the public was also planned.

PARTIAL SOLAR ECLIPSE VIEWING ►

Viewing of the year's first partial solar eclipse was held at the Science Centre Observatory on January 26. The Centre was thronged with 6,400 visitors eager to catch the eclipse. Visitors were also treated to astronomy talks, activities and a running commentary of the eclipse.



◀ SIDEWALK ASTRONOMY CARNIVAL

The Sidewalk Astronomy Carnival in May brought together astronomy amateurs, experts and families in a two-day, fun-filled astronomy extravaganza at Vivo City. Visitors got the chance to get up close and personal with the constellations through telescope observations, insightful documentaries by HISTORY™ Channel as well as astronomy talks. The event was jointly organised with North West CDC and was graced by Ms Ellen Lee, Member of Parliament for Sembawang Grassroots Committee (Woodlands). In all, 6,000 visitors participated in the carnival.



MID AUTUMN FESTIVAL ►

In celebration of the Mid Autumn Festival, the Centre, with the support of North West CDC organised stargazing activities and a movie at the Omni-Theatre. Free lanterns, mooncakes, candy floss and popcorn were given to children and families. The event graced by Dr Lim Wee Kiak, Member of Parliament for Sembawang Grassroots Committee, commenced with a lantern walk from the Chinese Garden to Omni-Theatre. The festival drew some 3,000 visitors.



◀ FESTIVAL OF THE STARS

The largest and most spectacular event in the IYA calendar, the Festival of the Stars was organised with Taman Jurong Citizens' Consultative Committee to coincide with a Leonids Meteor Shower. More than 10,000 visitors swarmed the Japanese Garden from 8pm to 5am the next day.

A world-class performance by Kenji Williams, an international audio visual art performer, was showcased alongside an explosive science show by Mike Hoyland from the United Kingdom. The Minister for Finance, Mr Tharman Shanmugaratnam graced the event.





SPACE STATION

Omni-Theatre took off into space in May with Space Station. The film chronicled the unique and amazing 16-nation partnership on the on-orbit assembly and habitation of the International Space Station (ISS), 350km above Earth. The film was an inspirational story of challenges faced and overcome by men and women who dared dream beyond life on Earth.

VAN GOGH - BRUSH WITH GENIUS

A poignant tribute to one of the greatest artists of all time, Van Gogh - Brush with Genius, provides an intimate glimpse into Van Gogh's life through his letters and places that inspired his works. The touching and powerful film left audiences mesmerised. Replicas of Van Gogh's magnificent paintings were also on display in an exhibition at the Omni-Theatre. Guest-of-Honour, RADM (NS) Lui Tuck Yew, Acting Minister for Ministry of Information, Communications & The Arts, gamely participated in painting a Van Gogh replica too.



BEARS

Audiences got up close and personal with these majestic creatures through the immersive experience that IMAX provides. From grizzlies in Alaska to polar bears on the arctic tundra, audiences were moved by their struggle for survival in their fight against overhunting and global warming.

UNDER THE SEA

Under the Sea premiered with much fanfare in October as the Science Centre and Mead Johnson Nutrition invited many distinguished guests including Guest-of-Honour, Mrs Grace Fu, Senior Minister of State, Ministry of National Development and Ministry of Education.

Through the visual majesty of IMAX, audiences were transported to crystal clear domains of diverse underwater dwellers and experienced face-to-face encounters with the ocean's most mysterious and stunning sea creatures.



FORCES OF NATURE

Forces of Nature examines the elemental power of earthquakes, tornadoes, and volcanoes. The realism of these natural disasters is brought to life through the majesty of IMAX. The film combines striking footage with computer-created re-enactments and interviews to capture the essence of what makes these natural forces lose control.

The function of education is to **engage** one to think intensively and to think critically. Intelligence plus character - that is the goal of true education
- Martin Luther King, Jr

We **engage** minds in an exploration of science in ways that are appealing and enjoyable to each individual.

Did you know?

The Science Centre Observatory is one of the few observatories in the world located next to the Equator. This unique position allows easy observation of constellations in both the northern and southern celestial hemispheres.



SCIENCE EDUCATION AND PROMOTION PROGRAMMES



SINGAPORE SCIENCE & ENGINEERING FAIR (SSEF) 2009

Singapore's premiere science competition, the Singapore Science and Engineering Fair (SSEF), received 400 project submissions this year, up from 372 last year. In all, 86 awards were given out, 14 of which were gold awards.

SSEF, jointly organised by the Science Centre, A*STAR and Ministry of Education, is affiliated with the prestigious international competition, the INTEL International Science and Engineering Fair (ISEF), held in the United States annually. Five young researchers were selected this year to represent Singapore in the international competition with projects ranging from physics and astronomy to medicine and health sciences.

A*STAR TALENT SEARCH 2009

A*STAR Talent Search (ATS) is an initiative to reward students who have performed well in scientific research. Nicholas Chen and Tan Chong Ming of NUS High School of Mathematics and Science clinched first and second places for their research on micromagnetics and DNA respectively. Third place was awarded to Lu Yongquan of Hwa Chong Institution for his research on visualisation of mathematical surfaces. Nobel Laureate, Sir Tim Hunt, from the United Kingdom, was one of the distinguished judges for the competition.



TAN KAH KEE YOUNG INVENTORS' AWARD (TKKYIA) 2009

The Tan Kah Kee Young Inventors' Award (TKKYIA), a collaborative project between the Tan Kah Kee Foundation, the Defence Science and Technology Agency (DSTA) and A*STAR, celebrates the inventive spirit in youths. A total of 925 entries were received this year and 70 inventions were awarded prizes by Mrs Grace Fu, Senior Minister of State, Ministry of National Development and Ministry of Education. The winning inventions were displayed at the Science Centre.



SONY CREATIVE SCIENCE AWARD (SCSA) 2009

A national competition encouraging creativity and innovation in primary school students, the Sony Creative Award (SCSA) 2009 attracted 3,423 toy entries from 101 primary schools. A total of 27 toys received awards this year. A new category – the Multi-player Toy, was also introduced. Primary 5 student Angel Liew clinched top honours in this category for her "Pop the Bean" toy.

SCSA 2009 was jointly organised by the Science Centre and Sony Group of Companies in Singapore, with the support of the Ministry of Education and A*STAR.



SCIENCE EDUCATION AND PROMOTION PROGRAMMES

SCIENCE BUSKERS FESTIVAL

Jointly organised by the Science Centre and A*STAR, the annual Science Buskers Festival seeks to develop individuals' communication skills through expressions of science in creative ways. A total of 73 contestants did a "show-and-tell" on science topics including chemistry, physics and more.

Guest-of-Honour, Ms Elim Chew, Founder and President of 77th Street and co-founder of the Singapore Street Festival, awarded the top three performers, Uncle Jimbo, Sweetheart the Clown and The Three Busketeers, with cash prizes as well as a one-year performing contract with the Science Centre.



science.09

"Ask Why?" was the theme of this year's science.09. Students and the public were encouraged to be curious and to seek answers to their questions in the month-long festival celebrating science, technology and biomedicine. The event was developed in partnership with over 20 organisations and offered more than 100 events to participants.

science.09 launched with X-periment!, a three-day mega carnival at Marina Square. The event was graced by Mr S Iswaran, Senior Minister of State, Ministry of Trade & Industry and Ministry of Education. At its close, the event drew some 80,000 participants in total.





NATIONAL SCIENCE CHALLENGE 2009

Reaching its highest broadcast viewership on Mediacorp Channel 5 this year, the National Science Challenge 2009 saw 54 teams compete for the championship. The team from Bukit Panjang Govt. High proudly took home the trophy this year, which was awarded by Guest-of-Honour, Mr Lee Yi Shyan, Minister of State, Ministry of Trade & Industry and Ministry of Manpower.

SCIENCE IN THE MALL

This highly successful and well-received bi-annual event jointly organised by A*STAR and the Science Centre is a science outreach project that targets students, families and the general public. The event was held twice over a 21-day period in June at Plaza Singapura and Tampines Mall where visitors had a roaring good time at “X-ploring Dino Trails” and in November at Parkway Parade where they had an illuminating one at “X-ploring Starry Nights”.





SCIENCE EDUCATION AND PROMOTION PROGRAMMES



32ND SHELL SINGAPORE YOUTH SCIENCE FESTIVAL (SSYSF)

“Star Science: Exploring New Frontiers” was the theme for the 32nd Shell Singapore Youth Science Festival. Launched by Mr S Iswaran, Senior Minister of State, Ministry of Trade & Industry and Ministry of Education, the festival encouraged students to explore and discover the wonders of the stars and planets.

The highlight event, the Shell Science Fair, received a total of 176 project submissions, with 114 shortlisted for display at the Centre.



GENEFEST

This year's GeneFest offered visitors a gallery trail and interactive activities centered on Microbes. Engaging and educational, the event pulled in a total of 6,069 students and public members.





MINDFEST

MindFest brought together “playful inventors” of all ages who eagerly participated in designing and building mechanical toys using simple materials, constructing interactive and shimmering works of art, creating sound effects for movie clips and more. The festival pulled in a strong crowd of 9,000 participants.

SCIENCE IN THE CAFE

Featuring discussions led by experts on topics of scientific research and issues, Science in the Café has seen growing interest from the public. The more than 20 sessions held this year were attended by over 1,400 participants. Since the first Café session in 2005, more than 18,000 people have attended the Café.



MEET THE SCIENTIST

A total of 17 Meet the Scientist sessions were organised this year. Distinguished scientists and guests speakers such as Nobel Laureate, Professor Barry J Marshall, introduced the wonders of research and development to some 1,000 participants.



GUIDEBOOKS LAUNCH

In January, the Science Centre launched two new guidebooks - Mosses of Singapore and Sponges of Singapore. The guidebooks contain a wealth of information on the local floral and fauna. A special display of mosses and sponges was also set up at the Science Centre. The event was graced by Guest-of-Honour, Dr Mohamad Maliki bin Osman, Parliamentary Secretary, Ministry of National Development. The Centre also kicked off the International Year of Biodiversity with this launch.



DIGITAL DESIGN & MOVIE STUDIOS

The Digital Design and Movie Studios, launched in the early part of 2009 have significantly expanded the Centre's enrichment and learning facilities, complementing the Robotics Learning Centre and Tinkerer's Lab.

At the Digital Design Studio, students learn about digital design, digital visual arts and the creation of solid 3D computer-aided objects. At the Movie Studio, students learn the workings of a professional HD studio and touch on topics including creative photography, creative photo editing, green screen technology and more.





DISCOVER SCIENCE RESOURCES

An initiative under the Science Centre and A*STAR, Discover Science Resources is an outreach project that makes available science resources such as kits, mini-exhibits and posters to teachers for use in their lessons. These resources help make the learning of science fun and enjoyable and have been utilised by 20 schools.



TEACHER WORKSHOPS

A total of 12 workshops were conducted for primary and secondary teachers this year. These lab-based workshops aimed to equip teachers with content knowledge in disciplines such as physical science, life science, kitchen science and digital media. A total of 396 teachers took part in the various workshops organised by the Teachers Training Task Force.



A committee is a group of people who individually can do nothing, but who, as a group, can **bond** together to produce wonderful things
- Fred A. Allen

A **bond** is something that cannot be broken easily. There is a bond between the Science Centre and the people who have made us who we are today.

Did you know?

Snow City is Singapore's first and only permanent snow centre. Visitors can enjoy a sub-zero environment and related programmes in tropical Singapore all year long!



VOLUNTEERS

The volunteer programme at the Science Centre aims to attract and engage youths and adults with a passion for science.

This year 2,241 volunteers committed 11,291 hours to help students and public visitors to the Centre gain a better understanding of science and technology. They helped make science accessible to the public and easy to understand.



SPONSORS

1. Agency for Science, Technology and Research (A*STAR)
2. Bayer (SEA) Pte Ltd
3. DSO National Laboratories
4. Defence Science and Technology Agency (DSTA)
5. Economic Development Board (EDB)
6. Infocomm Development Authority of Singapore (IDA)
7. Lee Foundation
8. Mead Johnson Nutrition (S) Pte Ltd
9. Shell Group of Companies in Singapore
10. Singapore Technologies Aerospace Ltd
11. Singapore Totalisator Board
12. Sony Electronics Asia Pacific Pte Ltd



Heart of Science

Science Centre Community Initiative

CORPORATE SOCIAL RESPONSIBILITY (CSR)

Integral to the Centre's commitment in promoting interest and learning in science and technology is our dedication to social outreach. Our Corporate Social Responsibility programme brings the Heart of Science to the less privileged, to improve the lives of our fellow members of society. The Heart of Science helps link corporations with charitable organisations to hold events for the needy, children and elderly at the Centre.

Charitable projects include:

1. Lion's Home charity day at Science Centre
2. Michelin's Day Out at Science Centre
3. The Spastic Children's Association of Singapore's Day Out at Science Centre
4. Sale of Body Worlds tickets for charity to Life Community Services Society and SPH School Pocket Money Fund

DISTINGUISHED VISITORS

1	Mrs Kobkeao Akarakupt, Chief Inspector General, Ministry of Science & Technology, Thailand
2	Brigadier General Thein Aung, Minister of Forestry, Myanmar
3	Mr Khin Maung Soe, Ambassador, Myanmar
4	Mr Juan Carlos Capunay, Ambassador, Peru, and family
5	Sir Richard Timothy Hunt, 2001 Nobel Prize winner in Physiology / Medicine, United Kingdom
6	Mrs Grace Fu, Senior Minister of State, Ministry of National Development and Ministry of Education
7	Mr S Iswaran, Senior Minister of State, Ministry of Trade & Industry and Ministry of Education
8	HE Jurin Laksanawisit, Minister for Education, Thailand and delegation
9	Mr K Kesavapany, Ambassador to Jordan
10	Mr & Mrs David Brown, Hon Consul-General for Toronto, Canada
11	Mr Albert Kh. Gilmuitdinov, Minister for Education and Science, Republic of Tatarstan, Russian Federation
12	Mr Soo Kok Leng, Ambassador to the Republic of Austria
13	Lord Martin Rees, Professor of Cosmology & Astrophysics; Master of Trinity College, University of Cambridge, United Kingdom
14	Mr Teo Chee Hean, Deputy Prime Minister and Minister for Defence
15	Dato' Madinah Mohamad, Secretary-General, Malaysia Ministry of Science, Technology & Innovation (MOSTI), Malaysia
16	Mrs Lim Hwee Hua, Second Minister for Finance, Ministry of Finance
17	HE Janne Julsrud, Ambassador, Royal Norwegian Embassy, Norway

EXECUTIVE COMMITTEE

Chairman	Mr Wee Heng Tin
Members	Mr Quek Gim Pew Dr Goh Chong Chia Mr Phillip Tan Dr Tan Hai Meng Mr Chia Mia Chiang Mr Bob Koh Chin Nguang

STAFF & ESTABLISHMENT COMMITTEE

Chairman	Dr Goh Chong Chia
Members	Mr Chia Mia Chiang Mr Lee Ark Boon Mr Howard Shaw

FINANCE & INVESTMENT COMMITTEE

Chairman	Mr Quek Gim Pew
Members	Mr Martijn van Koten Mr Alex Siow Mr Howard Shaw

AUDIT COMMITTEE

Chairman	Mr Phillip Tan
Members	Prof Andrew Wee Mr Timothy Sebastian Mrs Tan Mui Hwoon

EDUCATION DEVELOPMENT (AD HOC) COMMITTEE

Chairman	Dr Tan Hai Meng
Members	A/Prof Mansoor Bin Abdul Jalil A/Prof Chia Tet Fatt Mdm Tan Lay Hong Mr Bob Koh Chin Nguang

science.09 STEERING COMMITTEE

Chairman	Dr Chew Tuan Chiong	Science Centre Singapore
Co-Chairman	Prof Miranda Yap	A*STAR Graduate Academy, A*STAR
Secretary	Mr Ryan Hong Lee Han	Science Centre Singapore
Members	Ms Michelle Khor	A*STAR Graduate Academy
	Ms Elaine Lee	A*STAR Graduate Academy
	Mr Soh Swee Hock	Data Storage Institute
	Dr Jason Kreisberg	Genome Institute of Singapore
	Ms Chang Yin Wuan	Health Promotion Board
	Dr Ngoh Lek Heng	Institute for Infocomm Research
	Dr Ann Chow	Institute of Chemical Engineering and Sciences
	Ms Jofelyn Lye	Institute of Materials Research and Engineering
	Ms Sarah Ong	Institute of Microelectronics
	Dr Alice Tay	Institute of Molecular and Cell Biology
	Mr Cheong Kim Fatt	Ministry of Education
	Mr Francis Li	Nanyang Polytechnic
	Mr John Tan	Nanyang Polytechnic
	Prof Tjin Swee Chuan	Nanyang Technological University
	Ms Fatimah Sulaiman	National Library Board
	A/Prof Sow Chorng Haur	National University of Singapore
	Mrs Tan Mui Hwoon	Peoples' Association
	Mr Harry Seah	Public Utilities Board
	Dr Terence Chong	Republic Polytechnic
	Prof London Lucien Ooi	Singapore Health Services
	Ms Chia Hsin Ee	Singapore Institute of Clinical Sciences
	Dr Su Chun Wei	Singapore Institute of Manufacturing Technology
	Dr Dave Chong	Singapore Polytechnic
	Ms Jeannie Lim	Singapore Tourism Board
	Mr Leong Kit Hoong, John	Temasek Polytechnic

A*STAR TALENT SEARCH 2009 STEERING COMMITTEE

Chairman	Prof Lim Pin	National University of Singapore
Vice-Chairman	Prof Miranda Yap	A*STAR Graduate Academy, A*STAR
Vice-Chairman	Dr Chew Tuan Chiong	Science Centre Singapore
Secretary	Ms Rachel Chong Rui Zhi	Science Centre Singapore
Members	Dr Steve Oh	Bioprocessing Technology Institute, A*STAR
	A/Prof Hanry Yu	Institute of Bioengineering & Nanotechnology, A*STAR
	Dr Christina Chai	Institute of Chemical and Engineering Sciences, A*STAR
	Prof Alfred Huan	Nanyang Technological University
	A/Prof Chee Yeow Meng	Nanyang Technological University
	A/Prof James Goh Cho Hong	National University of Singapore
	A/Prof Lee Yuan Kun	National University of Singapore
	A/Prof Mark Breese	National University of Singapore
	A/Prof Tan Beng Hee Reginald	National University of Singapore
	A/Prof Yu Hao	National University of Singapore
	Prof Fu Xin-Yuan	National University of Singapore
	Prof Lee Jim Yang	National University of Singapore
	Prof Neoh Koon Gee	National University of Singapore
	Prof Mohan Balasubramanian	Temasek Life Sciences Laboratory

NATIONAL SCIENCE CHALLENGE 2009 STEERING COMMITTEE

Chairman	Prof Leo Tan Wee Hin	National University of Singapore
Secretary	Ms Chan Sue Li	Science Centre Singapore
Members	Prof Miranda Yap	A*STAR Graduate Academy, A*STAR
	Ms Michelle Khor	A*STAR Graduate Academy, A*STAR
	Mr Timothy Sebastian	A*STAR Graduate Academy, A*STAR
	Dr Andre Wan	Biomedical Research Council (BMRC), A*STAR
	Mdm Low Khah Gek	Ministry of Education
	Mr Koh Ch in Nguang	Ministry of Education
	A/Prof David Butler	Nanyang Technological University
	Dr Lim Kee Yong	Nanyang Technological University
	Prof Ling San	Nanyang Technological University
	A/Prof Shirley S L Lim	National Institute of Education
	Prof Andrew T S Wee	National University of Singapore
	Prof Andy Hor Tzi Sum	National University of Singapore
	Prof Ryan Bettens	National University of Singapore
	Dr Chew Tuan Chiong	Science Centre Singapore
	Ms Kamaria Bte Abdul Ghani	Science Centre Singapore
	A/Prof Sharen Liu	Singapore Institute of Management (UNISIM)
	Dr Lim Khiang Wee	Singapore Institute of Manufacturing Technology (SIMTech), A*STAR

32nd SHELL SINGAPORE YOUTH SCIENCE FESTIVAL ORGANISING COMMITTEE

Chairman	Dr Chew Tuan Chiong	Science Centre Singapore
Co-Chairman	Mrs Catherine Seah	Science Teachers Association in Singapore
Secretary	Ms Wong Yit Chee	Science Centre Singapore
Members	Dr Chan Kim Seng	Science Teachers Association of Singapore
	Mr Chan Ter Yue	Science Teachers Association of Singapore
	Ms Chua Soh Leng	Science Teachers Association of Singapore
	Mrs Christina Loh	Science Teachers Association of Singapore
	Mrs Doris Tan Swan Liang	Science Teachers Association of Singapore
	Mdm Khong Sow Cheng	Science Teachers Association of Singapore
	Mr Kwek Seng Hui	Science Teachers Association of Singapore
	Mrs Lau Fatt Yong	Science Teachers Association of Singapore
	Ms Lim Kuek Heng	Science Teachers Association of Singapore
	Mr Michael Long	Science Teachers Association of Singapore
	Mrs Nora Teo	Science Teachers Association of Singapore
	Mrs Ramakrishnan Naidu	Science Teachers Association of Singapore
	Mr Sunny Ho	Science Teachers Association of Singapore
	Mrs Yean Sok Kheng	Science Teachers Association of Singapore
	Mrs Anne Dhanaraj	Science Centre Singapore
	Ms Chong Swee Kiat	Science Centre Singapore
	Ms Kamaria Bte Abdul Ghani	Science Centre Singapore
	A/Prof Lim Tit Meng	Science Centre Singapore
	Mr Michael Chay	Science Centre Singapore
	Mrs Ong Me Lan	Science Centre Singapore
	Mrs Veronica Heng	Science Centre Singapore
	Ms Caroline Loke	Shell Group of Companies in Singapore
	Ms Mavis Quek	Shell Group of Companies in Singapore

SINGAPORE SCIENCE AND ENGINEERING FAIR 2009 WORKING COMMITTEE

Chairperson	Mr Bob Koh Chin Nguang	Ministry of Education
Fair Director	A/Prof Lim Tit Meng	Science Centre Singapore
Members	Ms Michelle Khor	A*STAR Graduate Academy, A*STAR
	Ms Marcie Chew	Defence Science and Technology Agency, DSTA
	Dr Darren Wong	Ministry of Education
	Ms Tan Lay Chin	Ministry of Education
	Ms Gayatri Balakrishnan	Ministry of Education
	Mdm Resma Gulza Mohd	Ministry of Education
	Mdm Low Bee Yen	Ministry of Education
	Mr Lim Poh Yeong Daniel	Ministry of Education
	Mr Edmund Song	Ministry of Education
	Dr Hedy Goh	Nanyang Polytechnic
	A/Prof Chia Tet Fatt	Nanyang Technological University
	A/Prof Chua Leok Poh	Nanyang Technological University
	A/Prof Chin Wee Shong	National University of Singapore
	Dr W.A.M. Alwis	Republic Polytechnic
	Ms Kamaria bte A.Ghani	Science Centre Singapore
	Ms Yeo Caixia Charlene	Science Centre Singapore
	Mrs Koh Siok Im	Singapore Polytechnic

SONY CREATIVE SCIENCE AWARDS 2009 ORGANISING COMMITTEE

Chairman	A/Prof Lim Tit Meng	Science Centre Singapore
Secretary	Ms Rachel Chong Rui Zhi	Science Centre Singapore
Members	Ms Michelle Khor	A*Star Graduate Academy, A*STAR
	Mr Tan Teck Hwa	Institute of Technical Education
	Ms Susan LeAnne Sim	Ministry of Education
	A/Prof Daniel Tan Tiong Hok	Nanyang Technological University
	Dr Chew Soon Hoe	National University of Singapore
	Dr Albert Miao	Republic Polytechnic
	Mrs Ong Me Lan	Science Centre Singapore
	Ms Kamaria bte A.Ghani	Science Centre Singapore
	Ms Audrey Mok	Sony Electronics (Asia Pacific) Pte. Ltd.
	Ms Sylvia Chim	Sony Electronics (Asia Pacific) Pte. Ltd.





15 Science Centre Road
Singapore 609081
Tel: (65) 6425 2500
Fax: (65) 6565 9533
www.science.edu.sg