



### 2nd school semester (2008-2009)

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# Happy New Year 2009!

By: Maissa Azab, PSC Publications Coordinator

Dear visitors,

Once again we stand at the threshold of a new year; a new year that can mark a new beginning in our vision and attitude towards the world we live in.

Launched with the belief in children's potential to change the future, the BA Planetarium Science Center (PSC) is a pioneer of informal science communication in Egypt. It has taken it upon itself to mobilize all available resources towards spreading the message of *Science for ALL*!

To that end, the PSC capitalizes on human resources, Egypt's most abundant resource. However, our trust and investment is not in just the human power to work but, more importantly, in the human mind to imagine and discover.

A Science Center is dedicated to increasing the public awareness and understanding of science through entertainment; it fulfills its goal by encouraging curiosity, imagination and creativity. In its endeavor to achieve that, the PSC seeks excellence and innovation.

This year, the PSC focuses on reinforcing its earlier successes and highlighting its annual events: the Summer Program, the FIRST-LEGO League in Egypt competition, the Egyptian Science and Engineering Fair (ESEF), the World Environment Day (WED), Eratosthenes festivity and the Science Festivity.

In 2009, we celebrate the third Science Festivity; a huge public event that gives science a presence in the community and offers people of all ages and backgrounds the opportunity to question, discuss, and explore. The overarching theme of the Science Festivity 2009 is "Energy". The hub of the Science Festivity is the "Science Village". which, as our visitors from 2007 and 2008 already know, hosts a large diversity of hands-on exhibits, in addition to the always intriguing Super Science Show. This year, visitors of the "Science Village" will also get the chance to attend the previously parallel lectures and presentations in the same location. For sure, our faithful as well as our new visitors will continue to experience the pleasure of lifelong learning; whether with family, friends, or on their own.

Moreover, this year, the PSC joins the world's celebration of the International Year of Astronomy (IYA2009). The vision of IYA2009 is to help the citizens of the world rediscover their place in the Universe and engage a personal sense of wonder and discovery. In commemoration of the 400th anniversary of the first use of an astronomical telescope by Galileo Galilei, IYA2009 is a global celebration of astronomy and its contributions to society and culture, under the theme "The Universe, Yours to Discover".

IYA2009 events and activities will promote a greater appreciation of the inspirational aspects of astronomy that embody an invaluable shared resource for all nations. On this occasion, the PSC is organizing a series of activities that include, among others: the "Astronomy Olympiad" competition, the "Universe Awareness" and the "Space Technology" programs, the "Astronomy in the Arab-Muslim Civilization" and the "She is an Astronomer" series of lectures and seminars, in addition to the 17th Annual Conference of the European Society for Astronomy in Culture (SEAC'2009).

2009 was also declared the Egypt-Italy Year of Science. In collaboration with the Egyptian Ministry of Higher Education and the Italian Embassy, the BA will be hosting five consecutive exhibitions, kicking off with the "Blow-Up, Images from the Nano-world" exhibition, 8-27 January, which aims to reveal the hidden and mysterious world of nanotechnology.

We invite you to visit our website at www.bibalex.org/psc regularly to read more and stay updated about all our activities during 2009, which promises to be an exciting year for Science and Technology in Egypt.

It is resolution time, and we here at the Planetarium Science Center are resolved to open new horizons with a clear vision. A vision that celebrates diversity and a firm determination to think globally while acting locally to change individual attitudes towards our shared reality, our country, our region, our world, and last, but most importantly, our shared humanity.





# The Planetarium Adventure Never Ends!

#### A Breakthrough in Planetarium Technology

Imagine a theater where all the sights and sounds are digital... A domed theater where the audience is surrounded with breathtaking high resolution images and is immersed in sound... A theater operated by one computer interface, a wireless remote control, and one powerful software program that runs everything in the theater... This is the Digital Theater... The latest planetarium technology in the world... This is the new phase of the BA Planetarium...

Since its inauguration in October 2002, the BA Planetarium, a beautiful piece of architecture, has been operating with two different systems: a large format IMAX film projection system, and a regular Video Panorama

projection system. The current Video Panorama system is a half-dome system where animated images are projected using multi-projectors, three to be exact with a range a little larger than half the screen. The rest of the screen area is covered by fixed pictures shown by slide projectors. The BA Planetarium also uses a Star-ball projector for astronomy live shows. The Star-ball projects about 5200 stars as well as 4 famous star constellations.

But, planetarium technologies are rapidly evolving and the BA Planetarium has fallen far from its rank as the ninth on the world at its inauguration. Consequently; as the host of the upcoming International Planetarium Society conference

(IPS 2010), the largest and most significant event in the world of planetariums, where nothing but cutting-edge developments are exposed; the BA has embarked on the endeavor to upgrade its Planetarium to rise up to the expectations of the visitors who will come from all over the world to partake in the IPS 2010.

Thanks to the Egyptian Ministry of Tourism, the BA's endeavor has found the financial resources to bring it to reality. Naturally, The Ministry's keen interest in this huge and expensive project rises from its awareness of the status of the Library of Alexandria as one of the most attractive touristic sites in Egypt.

The Planetarium upgrading project entails the replacement of the present half-dome system with a digital full-dome projection system; this means that the whole screen will be covered with animated imagery. The new system will have a rich set of real-time 3D astronomy features and comprises a wide database for stars, planets, and galaxies to be shown on the screen. The audience will be able to identify these celestial bodies and get a closer look at them; they will get to explore the mysterious universe as never before.

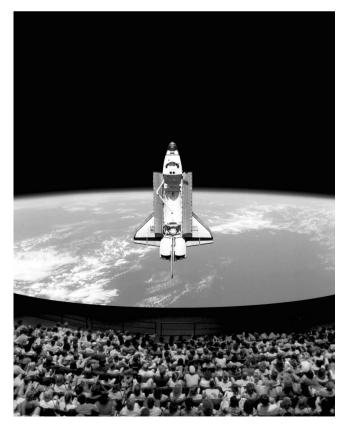
The new system will also enable the BA Planetarium Specialists who have, so far, succeeded in producing the first Egyptian planetarium show, which is also the first to be produced entirely in the Middle East, to build shows from a simpletouch screen interface and watch their creations in the star theatre. The new technology will launch a new era of theatre experiences as we will be able to draw our own images and add them with ease; the entire known universe will be available at the click of a mouse.





The BA Planetarium's attempt at bringing the industry of planetarium show production to the region is aimed at producing scientific shows that are directly related to our culture. It is yet another step forward on the Planetarium Science Center's road to bringing the world to the region and showcasing the region's rich heritage and export it to the world.

The Digital Theatre will develop systems and shows that transform the complex simulation technology to a 360-degree domed and large-format theatre experience. This upgrading project will reclaim the BA Planetarium's stature as a state-of-the-art facility and allow it to continue its pursuit as an educational and entertaining center of attraction. Once again, the BA Planetarium will be able to dazzle its visitors with surreal voyages, this time through a three dimensional universe!





## Solarmax

35 Min. IMAX film

Our Earth is a small planet; its pole crowned with a circle of «Northern Lights»...

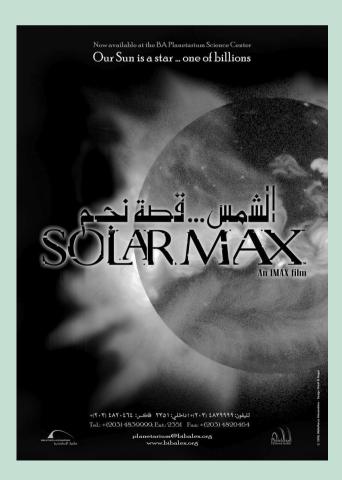
The whole planet glows in the infrared warmth of a star we rarely think about... A star we call the

Our Sun is one of billions of stars ... For us, it is the great engine of life ... Ancient civilizations called it God ... Now, space has given us new eyes ... Everything we had glimpsed before can be seen

Just as the telescope made the universe conceivable, new satellite-borne instruments are also allowing us to look at a sun that we have never seen before.

Solarmax traces the ascent of humankind as expressed by our developing understanding of the sun, and through it, our universe. The underlying theme of the film is the triumph of knowledge over ignorance, of light over darkness. For the first time we really can study a star in full spate as it builds up to its next peak of violence; the next solar maximum.

Every sunrise brings hope... For some, it's the hope that we can learn to do what the humblest plant can do... Make clean and abundant energy directly from sunlight...

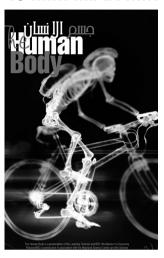


# **Human Body**

40 Min. IMAX film

You can enjoy the most interesting voyage ever, one in which science is telling an incredible story that takes place beneath your skin. It is the voyage of a single day in the lifetime of you and me, a voyage through the miracles of the Human Body. You will be enthralled by this extraordinary and insightful adventure that begins from the moment we first open our eyes, as burning cells from the surface of our retinas reveal a fresh set of sensors, to the last rumblings of our evening meal as it turns into the energy we will need to face tomorrow.

The Human Body uses groundbreaking photographic techniques to amaze audiences



with a firsthand look at some of the body's simple biological processes as never seen before.

### Sky of Alexandria 30 Min. Video Panorama

From the glory of Apollonius, Eratosthenes, Hipparchus, and Ptolemy, to what we know today, is our journey in the Sky of Alexandria, the first planetarium show ever produced entirely in the Middle East. In 30 minutes, we are taken on a voyage from the Earth to the Moon and an adventure among the planets, where we discover that our observations and knowledge of the universe are

a continuous path since ancient times: it is all the fruit of the contributions of the ancients.

The story is all about the evolution of Man's vision of the sky in search for answers to its riddles and laws of motion across time. The show explains how time acts as an important factor in the evolution of knowledge and the changes in ideas, opinions, and

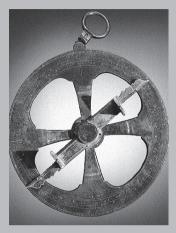
## Oasis in Space 25 Min. Half-dome Video Panorama

Time

- For the Planetarium daily schedule and fees, please consult the Centers official website: www.bibalex.org/psc
- Kindly note that, for technical reasons, the Planetarium maintains the right to cancel or change shows at any time without prior notification.

# **History of Science Museum**

### Astrolabes... The Illumination of Astronomy!





For about two thousand years, astronomers have been able to calculate the position of celestial bodies, measure the time of the year, compute what part of the sky is visible at any time, determine the altitude of any object over the horizon and the current latitude. That is all thanks to the «astrolabe».

The history of the astrolabe spans many centuries and cultures. The astrolabe was highly developed in the Islamic world. It was also introduced to Europe from Islamic Spain, Andalusia, in the early 12<sup>th</sup> century.

Now, the question should be: What in the Heavens is that astrolabe?!

That instrument called the «astrolabe» is a two-dimensional model of the celestial sphere, used by classical astronomers and astrologers. The oldest astrolabes were created a few centuries BCE, possibly by Hipparchus.

The astrolabe consists of a Mater, Rete, Pin, Horse, Alidade, and Plate. The main part of the astrolabe is a circular plate of metal, about 15 cm in diameter. The Astrolabe has two sides: back and front. The back is engraved with several circles divided by

different kinds of gradations; such as 360 degrees, 365 ½ parts for the days, or 12 for the months, etc. The front of the astrolabe is also engraved with an outer circle having 24 divisions for the hours, numbered by letters, and another circle divided like a calendar using the zodiacal constellations; the tropics and equator are engraved in the central part, the celestial pole being at the center of the disk.

The astrolabe was introduced to the Islamic world in the eighth and ninth centuries through translations of Greek texts. It was fully developed during the early centuries of Islam. The reason why astrolabes were inherently valuable in Islam was its ability to determine the time of the day and, therefore, prayer times. It was also used as an aid in finding the direction to Mecca.

There are different kinds of Astrolabes. The Mariner's Astrolabe is one. It is used to determine the latitude of a ship at sea by measuring the noon altitude of the Sun or the altitude of a star.

The planispheric astrolabe is another type; it is made of metal, usually brass or iron, and it enabled astronomers to calculate the position of the Sun and prominent stars with

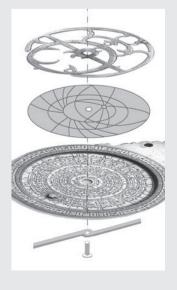
respect to both the horizon and the meridian. It provided them with a plane image of the celestial sphere and the principal circles, especially those representing the ecliptic and celestial equators, and tropics of Cancer and Capricorn. Because of such features, the planispheric astrolabe can be regarded as a kind of rudimentary analogue computer.

A third type is the Electric Astrolabe; it is a fully animated planetarium program in the form of a planispheric astrolabe. The advantage of this astrolabe display is that it shows most of the sky. both visible and invisible, on a single screen. Furthermore, the Electric Astrolabe includes over 150 stars that can be displayed as constellation asterisms. Either a north or south projection can be shown. It can also display the phases of the Moon, Jupiter's moons, Saturn's rings, lunar eclipses and the phases of the planets at any time. The electric astrolabe can be set for any location, date and time, and includes accurate positions of the Sun, Moon, and planets.

The Planetarium Science Center features a small exhibition about "The Contributions of the Arabs to the World's Astronomy", entitled "Star Riders", where several types of astrolabes are on display. Further information about astrolabes is also available in the Islamic section of the History of Science Museum.

#### Glossary:

- 1. Mater: Body of the planispheric astrolabe; it is a thin circular plate with a hole in the center.
- 2. Rete: The most characteristic part of the planispheric astrolabe; it is held against the plate by means of the horse, but can rotate freely in the mater around the pin.
- 3. Pin: Inserted in the back of the mater, the pin enables the main parts of the instrument to rotate freely around the common center of the mater and the plate.
- 4. Horse: A small prominence inserted into a slit in the pin; it prevents the parts of the instrument from becoming loose when in use.
- 5. Alidade: The sighting apparatus at the back of astrolabes for measuring the altitude of celestial objects.
- 6. The plate (also called climate or tympanum): Inserts into mater and shows local latitude by circles of altitude and azimuth.





HECA ALEXANDRINA

#### **Museum Admission and Tours**

#### **Opening Hours**

 Saturday to Thursday
 [from 09:00 am to 16:00 pm]

 Friday
 [from 15:00 pm to 18:00 pm]

#### **Guided Tours Schedule**

Saturday to Thursday [10:00 am + 11:00 am + 12:15 pm + 13:00 pm + 14:15 pm] Friday [16:45 pm]

- Museum entry fees are included in all Planetarium show tickets.
- For non-audience of the Planetarium, Museum entry fees are 0.50 EGP.
- Museum Tours are free for ticket holders.

#### **ALEXploratorium**

### Discovery Zone

Tel: (+203) 48399

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The current Discovery Zone exhibit area where visitors can interact directly with the experiments on display is divided into five main themes: Physics, Biology, Chemistry, Astronomy and Games.

The Discovery Zone now also comprises:

- the **Timeline** banner, located in the entrance of the Discovery Zone and dedicated to highlighting 48 scientific milestones throughout history from 35000 BCE to the year 2000;
- the **Nobel Laureates** banners on display in the entrance of the main Discovery Zone exhibit area dedicated to honoring a few of the great scientists who have received the prestigious prize for achievements directly related to the themes adopted by the ALEXploratorium exhibits and activities; and
- the **Kids Corner**, a special area where children under 6 years of age can safely have fun while their families enjoy the PSC activities.

#### **Opening Hours**

Saturday to Thursday [from 09:00 am to 16:00 pm] Friday [from 15:00 pm to 17:00 pm]

#### **Guided Tours Schedule**

Saturday to Thursday

[10:00 am + 11:00 am + 12:00 pm + 13:00 pm + 14:00 pm + 15:00 pm]

riday [15:00 pm + 16:00 pm]

#### Discovery Zone entry fees are:

Students 2 EGP Non-students 4 EGP

#### Listen and Discover

Short and simple scientific documentary films of a lively nature that attract audience and help them understand scientific issues in an appealing and interesting manner.

- For the list of shows avail able at the «Listen and Discover» and the schedule, please consult the Center's official website: www.bibalex.org/psc.
- For reservation, please contact the PSC Administrator at least one week before the desired date.
- «Listen and Discover» show fees are:

#### DVD shows:

 Students
 1 EGP

 Non-students
 2 EGP

 3D shows:
 Students
 2 EGP

 Non-students
 4 EGP



ALEXploratorium@bibalex.



#### The Workshop

Workshops are hands-on activities that allow students to get in direct contact with scientific phenomena while interacting with the PSC staff. Every season, ALEXploratorium specialists develop new ideas for the workshops they prepare for the students. The Specialists' main concern is to make the workshops enjoyable while practical and useful for students. Through direct contact with the students, the specialists have developed an extensive knowledge of their interests and the appropriate methods to approach them.

In this season's workshops, students are going to learn much about different fields of science; among other things, they will learn some of the wonders of the fish world, the secrets of water, the geological nature of Egypt, some aspects of the human body, and the relation between light and colors. The students will also learn some interesting facts about how bodies can float on water, how a volcano erupts, as well as the importance of energy in our lives, and the power of magnetic fields.

As always, we do our best to guarantee that the students enjoy their experience with us and come visit us every new season for a new variety of intriguing workshops. The 2<sup>nd</sup> school semester 2008/2009 workshops start in February 2009 and end in June 2009.

- The workshops are available from Sunday to Thursday, at 10:00 am and 12:00 pm; however, reservation must be made at least one week in advance.
- · ALEXploratorium Workshop fees are 2 EGP per student.

#### Fish (15-26 February 2009)

Fish are of tremendous importance as food for people around the world. They also play an important role in many cultures through the ages, ranging as widely as religious symbols to subjects of books and popular movies. In this workshop, we will help students understand the importance of fish. We will talk about the different fish, analyze their characteristics and skeletons, and see the environments they live in and the specifications of their nutrition.

- Target Age Group: 7-11 years

#### Water (15-26 February 2009)

Water is a common chemical substance that is essential for the survival of all known forms of life. Actually, you use water every day; in drinking, washing, cleaning (ugh!), swimming, and many other things. But do you ever think about where water comes from? Or the different forms water can take? In this workshop, the kids will discover the properties of water, the water cycle, and how water is filtered.

- Target Age Group: 7-11 years

#### Geology (1-12 March 2009)

Geology is the study of the Earth. Geologists work to understand the history and nature of our planet. They study how Earth's materials, structures, processes and organisms have changed over time. In this workshop, kids will be acquainted with the Egyptian geological nature through exposure to the different kinds of rocks and mountains in Egypt; they will learn how these rocks are formed. The kids will also learn about dinosaurs; why they are extinct and why their bone structure does not disintegrate.

- Target Age Group: 10-13 years

#### Light and Colors (1-12 March 2009)

Without light, colors do not exist. But how can light enable us to see them? How is it that two colors mixed together make a third? Why do crystal drops cast rainbows when they catch the light? Why isn't the sky always the same color? To answer these questions, the kids will have to find out more about light, as well as colors, and discover those we can see and those that are hidden.

- Target Age Group: 7-11 years

#### Volcanoes (15-26 March 2009)

A volcano is an opening in a planet's surface that allows lava to escape, as well as other hot molten rocks and poisonous gases, from below the surface. Volcanoes are formed where there is stretching and thinning of the Earth's crust. Earthquakes also often occur in volcanic regions, by the movement of magma in volcanoes. Such earthquakes can serve as an early warning of volcanic eruptions. This workshop is about Volcanoes and Earthquakes. It consists of experiments about the topology of the Earth, the equipment used to measure earthquakes, the reasons for volcanic eruptions, and the composition of lava.

- Target Age Group: 8-12 years

#### Density (15-26 March 2009)

Density is a physical property of matter because each element and compound has a unique density associated with it. Different materials usually have different densities, which makes it an important concept. Understanding density helps us know the answer to many questions, one of which is: why do some objects float on water and others sink in it? This workshop introduces the kids to the theory of density and floating bodies through fun experiments.

- Target Age Group: 10-13 years



#### Energy (29 March - 16 April 2009)

All forms of energy are stored in different ways in energy sources that we use every day. These sources are divided into renewable, which include solar energy, wind, geothermal energy, biomass, and hydropower, and nonrenewable, which include fossil fuels: oil, natural gas, and coal. This workshop presents the different forms of energy, using interactive experiments to explain how energy is transformed from one form to another, its properties and its applications in the daily life.

- Target Age Group: 11-15 years

#### Magnets (29 March - 16 April 2009)

A magnet is a material or object that produces a magnetic field. This magnetic field is invisible but is responsible for a force that pulls on other magnetic materials and attracts or repels other magnets. When you use a computer, you're using magnets! A hard drive relies on magnets to store data, and some monitors use magnets to create images. If your home has a doorbell, it probably uses an electromagnet to drive a noisemaker. In this workshop, kids will learn how and why magnets are vital for many devices we use on daily basis.

- Target Age Group: 10-13 years

#### Human Body (19-30 April 2009)

The human body is the entire physical and mental structure of a human organism. By the time the human reaches adulthood, the body consists of close to 10 trillion cells. Groups of cells combine to form tissue, which combines to form organs, which work together to form organ systems. This workshop is about the human body and its enthralling wonders. Its includes experiments about lung capacity, digestion, DNA, the skeleton, pulse, as well as embryonic stages.

- Target Age Group: 7-11 years

#### **Chemistry (19-30 April 2009)**

Chemistry is the Science of chance. It looks at all the different kinds of substances and how they interact with each other. People in widely differing walks of life use chemistry every day. The chemistry workshop comprises some simple and fun scientific experiments that familiarize children with some chemical secrets, such as: the secret of chemical reactions, atoms and molecules, the difference between compounds and mixtures, acid base reactions, ... etc.

- Target Age Group: 10-13 years

#### Space Technology

(1 January - 31 March 2009) an IYA2009 activity

Understanding Space is essential to face 21st-century challenges, such as: climate change, natural disasters, security, communication, and scientific development in general. The Space Technology program offered by the PSC simplifies this field to students via multiple activities including lectures, workshops, fieldtrips, and research

- Target Age Group: 14-20 years
- Session Duration: 120 min
- 8 sessions/program
- Program fees, including fieldtrips, are 75 EĞP per student.
- -For additional information and registration, please contact the PSC Administrator.

#### **Universe Awareness**

(1 February - 30 March 2009) an IYA2009 activity

Part of the International Year of Astronomy program (IYA) 2009, Universe Awareness (UNAWÉ) is an international outreach activity that uses the beauty and grandeur of the Universe to inspire very young disadvantaged children. This program aims to broaden children's minds, awaken their curiosity science, and stimulate global citizenship and tolerance.

- Target Age Group: 10-15 years

- For additional information registration, please contact the PSC Administrator.

#### Astronomy Olympiad

(15 February – 5 April 2009)

an IYA2009 activity

The Astronomy Olympiad is a competition targeting school students, 10-13 years of age. Its main goal is to stimulate enthusiasm and interest in astronomy. The competition will be among 16 school teams and will be divided into a number of rounds where every two teams will compete to accomplish a task and get points for each task; the team with the highest number of points will be the winning team.

- Target Age Group: 10-13 years

- For additional information and registration, please contact the PSC Administrator.

#### Chess Club

(15 February - 30 April 2009)

Chess is an exercise of infinite possibilities for the mind; one which abilities develops mental used throughout life: concentration, critical thinking, pattern recognition, strategic planning, creativity, analysis, synthesis, and evaluation, to name a few. Chess is also a highly effective tool for teaching problem solving and abstract reasoning. Learning how to solve a problem is actually more important than learning the solution to any particular problem. Through chess, we learn how to analyze a situation by focusing on important factors and by eliminating distractions. To that end, the PSC is launching this new program that aims at developing the mental capacity and analytical skills of children.

- Target Age Group: 8-15 years

additional information registration, please contact the PSC Administrator.

#### **Zoom Earth**

(15 February - 30 April 2009)

A successful outreach program, Zoom Earth is delivered by a specialist in the remote sensing. This program is based on the analysis of images of the Earth provided by satellites; it aims to increase awareness of new technologies and finding solutions for crucial current problems. "Climate Change" is the theme of Zoom Earth in 2009; given the dire need for heightened public awareness of the impact of climate change and air pollution on human health, the PSC is organizing a number of lectures, field trips, and hands-on activities on the subject for governmental as well as private schools

- Target Age Group: 10-15 years Maximum number of participants per group: 30 students
- Session Duration: 90 min

twice a week (Sunday and Monday)

- Participation is for schools only; for registration, please contact the PSC Administrator at least one week before the start of the program.

#### Fun with Science (15 February - 30 April 2009)

In collaboration with the BA Young People and Children libraries. the PSC offers the Fun with Science program, which applies a series of fables containing valuable messages that aim to provide children with a scientific basis, enabling them to make use of scientific facts as a creative tool. A major theme of the program is the introduction of «systems thinking»; children learn that everything in the world is interconnected. The 1st part of the program is based on storytelling, while the 2nd part focuses on hands-on scientific activities

- Target Age Group: 8-14 years
- Number of participants per group: 20-25 students

- Session Duration: 120 min

- twice a week (Sunday and Wednesday) - PSC workshop fees are 2 EGP per student per session.
- Young People and Children Library entry fees are 0.50 EGP per student per visit.
- For registration, please contact the PSC Administrator at least one week before the start of the program.

#### Super Science Show (15 February - 30 April 2009)

The Super Science Show is a dynamic and highly motivational activity that gets children involved in exciting hands-on experiments in the fields of Physics, Biology, and Chemistry that stimulate infectious enthusiasm. This



ever-intriguing show allows children to use a variety of materials, such as balloons, bouncing balls, balance board, water, liquid Nitrogen, dry ice and soda cans.

- Target Age Group: 6-16 years
- Maximum number of participants: 50 students
- Show Duration: 90 min
- Indoor Show fees are 150 EGP
- Outdoor Show fees are 300 EGP
- For reservation, please contact the PSC Administrator at least one week before the desired date.

#### SEED Corner

(15 February - 30 April 2009)

The outcome of an ongoing collaboration between the Schlumberger **Excellence in Educational Development** (SEED) program and the Planetarium Science Center (PSC), SEED corner hosted at the PSC ALEXploratorium offers a series of hands-on activities related to various scientific themes carefully selected to stimulate children to dwell on current issues and challenges facing the world of today. Themes to be tackled during 2009 include water analysis, climate change and clean energy.

- Target Age Group: 12-16 years
- Number of participants per group: 10-20 students
- Number of sessions per program: 6 Session Duration: 90 min
- once a week (Thursday)
   Session Time: 17:00-19:00 pm
- Each program includes two to three field trips
- Program fees, including fieldtrips, are 75 EĞP per student
- additional information and registration, please contact the PSC administrator.

#### **Astro-Camp**

(15 February - 30 April 2009)

Other than seizing the occasion of significant astronomical events, the Astro-Camp observations are conducted in significant historical sites where specialized lectures and interesting activities that revolve around science, history and culture complement the observations.

- Target Age Group: 12-15 years
- additional information registration, please contact the PSC Administrator.

#### **ALEXploratorium Contests** (15 February - 30 April 2009)

The ALEXploratorium contest helps students of different age groups interact with essential scientific topics through



teamwork. The contest gives students an opportunity to test their knowledge and mental abilities to explore the world of science. It also encourages them to aspire to participate in the process of science communication and share their knowledge with each other. The contest is divided into: the Human Body, Computer Games, Timeline, and the Periodic Table.

- Target Age Group: 12-16 years For reservation, please contact the PSC Administrator at least one week before the desired date.

#### **HSM Presentations**

(15 February - 30 April 2009)

The History of Science Museum

offers a variety of presentations, each of which focuses on a specific subject displayed at the Museum, with rich and detailed ideas and facts, designed in a simple and attractive manner, and shown via data show. The presentations are shown at different points in the Museum where visitors are able to browse through their content freely using touch screen browsing. The presentations are available in: Arabic, English, and French.

#### Science Club

(1 December 2008 - 21 June 2009)

An ambitious outreach project, the Science Club program has been adopted by the PSC to bring the handson concept to science learning within formal education framework. It the aims to establish scientific corners in different schools and train teachers to use innovative communication methods through workshops and researches. The program aspires to stimulate curiosity, interest and enjoyment in science, in addition to enhancing experimental abilities and developing investigative

- Target Age Group: 12-15 years
- Participation is for schools only; for registration, please contact the PSC Administrator for details.

#### Save the Date!

#### **ALEX Science** and Engineering Fair (ASEF) (25 February 2009)

In collaboration with Intel Co. and ATLAS For Youth NGO, the PSC organizes this local competition, which is a first stage to prepare students for participating, competing, and winning in the national competition, Egypt Science and Engineering Fair (ESEF) in March 2009. ESEF winning projects



will represent Egypt in the International Science and Engineering Fair (ISEF) that will take place this year in the USA, in May 2009

- Target Age Group: 14-17 years
- One session per week (Saturday)
- For additional information reservation, please contact the PSC Administrator.

#### **Egypt Science** and Engineering Fair (ESEF) (19 March 2009)

The International Science and Engineering Fair (Intel ISEF) is an international science competition that provides an opportunity for outstanding young scientists and inventors to come together to share ideas and showcase cutting-edge science projects. ISEF occurs once a year in the USA, bringing together youth from all over the world to compete over millions of dollars in scholarships, tuition grants, scientific equipment, and scientific trips. In cooperation with Intel Co., the BA hosts Egypt Science and Engineering Fair organized to prepare students opportunities of participation, competing, and winning in the international competition. etition.

- Target Age Group: 14 -17 years
- One session per week (Saturday)
- For additional information and reservation, please contact the PSC Administrator.

#### Science Festivity (8-10 April 2009)

A mega-event, the Science Festivity gives science a presence in the community and offers people of all ages and backgrounds the opportunity to question, discuss, and explore. The hub of the Science Festivity is the "Science Village" featuring a large diversity of hands-on exhibits, the Super Science Show, and a variety of lectures and presentations, all in the same location. The overarching theme of the Science Festivity 2009 is "Energy"; it takes place on the BA Plaza on 89- April and at Antoniadis Gardens on 10 April. As usual, the Science Festivity is open to the public free of charge. Everyone welcomed to experience the pleasure of lifelong learning; whether with family, friends, or on their own.

#### Astronomy Day

(7 May 2009) - an IYA2009 activity

Astronomy Day is a movement designed to share the joy of astronomy with the general public, under the theme of "Bringing Astronomy to the People". On Astronomy Day, thousands of people will have an opportunity to see firsthand

what astronomers are up to. Astronomy clubs, science museums, observatories, universities, planetariums, laboratories, libraries, and nature centers host special events and activities to acquaint their population with local astronomical resources and facilities.

#### World Environment Day (7 June 2009)

Celebrated every year on 7 June, the World Environment Day (WED) is one of the principal vehicles through which the United Nations stimulates worldwide awareness of the environment and enhances political attention and action. The PSC is celebrating WED at the BA in cooperation with Wadi Environment Science Center and the British Council.

#### **Eratosthenes 2009**

(20 -21 June 2009)

In celebration of the eminent scientist Eratosthenes, the third Librarian of the ancient Library of Alexandria who excelled in most ancient fields of science. The annual festivity is based on a shared effort between school students in both Alexandria and Aswan to determine the circumference of the Earth using the method developed by Eratosthenes, nearly 2000 years ago, on the day of summer solstice.

#### **Planetarium** Science Center 2<sup>nd</sup> year | 2<sup>nd</sup> edition

2nd school semester (2008 - 2009)

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