

In addition to a concurrent session programme, there will be poster presentations addressing the four sub-themes of the 6SCWC: science as part of culture; building communities through science: the role of science centres; recognising the multi-cultural roots of science and technology and the value of Indigenous Knowledge Systems. These posters will be on display in the Khoroni for the duration of the congress week from Monday - Thursday, and submitting presenters will be available to present their posters during lunches and refreshment breaks. Posters are grouped according to sub-theme. Please refer to the Khoroni floor plan on page 53 for the allocated poster position.

SUB-THEME: BUILDING COMMUNITIES THROUGH SCIENCE: THE ROLE OF SCIENCE CENTRES

AN ACADEMIC SCIENCE CENTRE TO COMPLEMENT SCIENCE LEARNING (AND TEACHING) POSTER NO: P1

*Presenters: Padmanabhan Nair; Gavin Robinson
University of Johannesburg, South Africa*

The Soweto Science Centre utilised a multi-faceted approach of community engagement coupled to government structures whilst using the imagination of the University of Johannesburg, to bring science to the community's doorstep. A focus on teaching and learning was boldly implemented in various manners to provide endless opportunities for disadvantaged learners to enable them to access main stream science. This was accomplished by establishing a science centre, in the cradle of South Africa's most famous community – Soweto. The centre together with the newly revamped Soweto campus boasts facilities second to none. Labs, top class lecture venues and computer structures are readily available. Outreach in 2010 to over one thousand eight hundred learners is just the beginning..

A SCIENCE CENTRE EFFORT TO PROMOTE MOLECULAR SCIENCES POSTER NO: P2

*Presenter: Sten Ljungström
Universeum AB, Sweden*

Molecules Are Everything! The world is full of marvels and phenomena. The more science we know, the better prepared we are to explore them. What we learn and understand through science we may also exploit in our favor, to reach our dreams. Molecular Frontiers is a global effort to promote the understanding and appreciation of molecular science in society. At Universeum we have launched a new school outreach program about molecules. A young active scientist and a science centre educator together pay visits to schools to do workshops, at first with the teachers and later on with the children on two occasions. Teachers as well as pupils have the possibility to take part in, discuss and learn about young people's research. <http://www.molecularfrontiers.org/> <http://www.universeum.se>

UNPACKING ZERO MOTION IN PHYSICS POSTER NO: P3

*Presenter: Abraham Motlhabane
UNISA, South Africa*

This poster unveils zero motion as related to the different concepts such as zero acceleration, zero velocity, zero speed, zero displacement, zero distance, and zero time. The relationship between these concepts requires the availability (in science centres) of real life equipments which can aid in the meaningful understanding of these concepts. The poster emphasizes that zero as a concept in Physics that should be well understood. Learners should not think that zero quantity means nothing, but they should be aided to put meaning to zero quantity. The poster points out how learners understand and view zero acceleration, zero velocity, zero speed, zero displacement, zero distance, and zero time.

AWESOME AIDS ODYSSEY POSTER NO: P4

*Presenter: Diane Stacey Naidoo
UNIZUL Science Centre, South Africa*

"Who can we ask if we want to know about HIV/AIDS?" This is a question posed to our learners but rarely do they answer "Scientists" - people that spend their lives researching HIV/AIDS. Being situated in an area where HIV prevalence is the highest in the world, the UNIZUL Science Centre has been piloting an approach which educates our learners about the science behind this deadly virus and empowers young people to make choices which are sensible and scientific. This in turn allows young people to live healthy, fulfilling lives thus contributing to the development of our community and country. This poster will illustrate our HIV/AIDS programme and emphasize how the UNIZUL Science Centre is building our community through science.

MAKING SCIENCE ACCESSIBLE TO CHILDREN OF DIFFERENT CULTURES: EFFECTIVE TRANSLATION POSTER NO: P5

*Presenters: Sandra Thong¹; Hsiang Low²; Corrie Williams²
¹Senior Education Officer, Australia; ²Monash Science Centre, Australia*

An exploration of what translating science means using examples through which science centres may achieve this and consequently expand their reach. Translation of science includes more than a change of dialect. To successfully communicate even the simplest ideas, it is essential to understand the culture of an audience, listener or active participant in order to realise strategies to accommodate ways of learning. Collaboration between those distanced by geography or culture is highlighted as the key component in assisting in the translation of written resources for children, including texts for hands-on learning and a hybrid fiction/non-fiction storybook. Classroom environment teaching of multicultural groups also highlights the collaboration between teachers and students in appreciating phenomena common to all individuals.

CREATING A CULTURE OF ENVIRONMENTAL AWARENESS AND RESPONSIBILITY IN THE URBAN CONTEXT OF THE CITY OF JOHANNESBURG

POSTER NO: P6

Presenters: Nicole Fergusson; Kogie Moodley
Johannesburg City Parks, South Africa

Johannesburg City Parks' focus is on effectively instilling environmental awareness and responsibility in learners, educators and community groups, while still keeping an appropriate scientific focus. Our poster illustrates how our centres capacitate, or impart skills that can be taken into communities and implemented to raise awareness of environmental challenges and make positive environmental changes. Science can provide solutions to environmental crises or challenges. Science centres play a vital role in raising awareness of the opportunities that science provides and its role in the lives of human beings, but also to build environmental responsibility. This poster illustrates the role of science as an agent of change at 2 Johannesburg City Parks Environmental Education Centres; Johannesburg Botanical Garden EE Centre (Emmarentia) and Dorothy Nyembe EE Centre (Soweto). These centres aim to support, facilitate and assist schools and communities in improving scientific knowledge, skills and values build capacity to address environmental issues within communities.

USING LOW COST AND SIMPLE TO BUILD MODELS AND IDEAS, TO PROMOTE INTERACTIVE EARTH SCIENCES IN SCIENCE CENTRES AND THE COMMUNITIES

POSTER NO: P7

Presenters: Tanja Reinhardt; Mark Horan
University of KwaZulu-Natal, South Africa

With such diverse access to education and resources within South Africa, the explanation of natural phenomena and environmental hazards to the affected or at risk communities is problematic. The purpose of this poster is to show exciting low cost models that enable Science Centres and museums to engage the public in Earth Science education, an often complex and neglected topic. These models and ideas have been widely used at science festivals, in Science Centres and in public outreach activities and are extensible for use by schools in often under resourced areas.

MULTI-PURPOSE NATIONAL SCIENCE CENTRE FOR UGANDA

POSTER NO: P8

Presenter: Edward Tujunirwe
Uganda National Council for Science and Technology, Uganda

Science and technology have had an enormous impact on reducing the burden of physical work and improving social welfare. These contributions have only been made possible by the enormous practical power of science to extend human ability to imagine and to develop alternatives. Unquestionably, scientific and technological progress has provided many benefits over the long term for the industrialized countries and in more recent times for developing countries. Industrialized countries' per capita income has been reported to have increased almost tenfold in the space of two centuries, in addition to the other individual and collective benefits such as longer life, lower infant mortality, eradication of certain diseases, higher level of education, more rapid means of communication, better living and working conditions, greater social protection, and more leisure opportunities, among others. Science is crucial for the youth. It has removed communication barriers, making previously inaccessible information, available to us, making life a lot easier. There is therefore need to recognize the role of science and technology plays in improving livelihoods and solving problems in Uganda and world over. The Science Centre is a tool for achieving this, and it will not only show-case both traditional and foreign innovations, inventions, and major achievements of science. The Science Centre will meet the high standards of quality and expertise demanded by scientists, students, educationists and industrialists, and for delivery of S&T information and services.

SCIENCE, THE KEY TO SUCCESS!

POSTER NO: P9

Presenter: Angela Ford (presented by Alfred Tsipa and Rufus Wesi)
Osizweni Education & Development Centre, South Africa

Osizweni Science Centre has added value to the lives of their community members through their unique educational programs. Some of these programs include: the Student Fellowship program; major improvement of the Osizweni Secondary school matric results; educator curriculum support through the Science Centre; Project A and MST Aftercare programs benefit the communities; ICT training program, a vital skill in today's society; the importance of career guidance. These stories will be featured as the programs are unique to the Science Centre environment and not ordinarily conducted in Science centres globally. We believe that it would be beneficial for international guests to realize that the South African Science Centre model is about a lot more than just exhibitory.

KENYA AGRICULTURAL RESEARCH INSTITUTE IMPACT ON FARMING AND MUSEUMS

POSTER NO: P10

Presenter: Kenneth Monjero
Kenya Agricultural Research Institute, Kenya

There is an increased impact on farming and Museums by the Kenya Agricultural Research Institute which has enhanced production by communities on commercialization and competitiveness of agriculture through generation and promotion of knowledge, information and technologies that respond to farmer's demands. Food crops, horticulture and industrial crops have been developed and in collaboration with the Museums enhanced awareness through displays and distribution of the same to communities. Animal sector has been active through production, range management and animal health. Natural resource management, adaptive research, socio economics and applied statistics. Seed unit has been of great significance to communities since they can obtain various seeds. There is concrete management of information and communication, planning monitoring and evaluations.

CATALYSING PARTNERSHIPS: CAN SCIENCE CENTRES BRIDGE THE GAP AND PROMOTE DIALOGUE BETWEEN SCIENTISTS AND THE PUBLIC IN BIOMEDICINE?

POSTER NO: P11

Presenters: Valerie Corfield¹; Ryan Bruton²
¹University of Stellenbosch and Medical Research Council, South Africa; ²Consultant, South Africa

An initiative to build partnerships between South African Science Centres (SC) and medical scientists that developed the capacity of both to engage the public on relevant biomedical issues and promoted the intermediary role of SCs between scientists and the public in stimulating dialogue is described. Phase 1 assessed the effectiveness of previously developed activities to promote this engagement. Phase 2 used this formalised evidence to develop workshops for SC facilitators and biomedical scientists. Workshop outcomes included new best-practice partnerships between SCs and scientists that included HIV, DNA, biotechnology, science-in-a-bottle and drug-abuse workshops; TB, stem cell and skin exhibits, an HIV interactive show, a TB play and a Murder Mystery evening which have been presented to diverse audiences at varied venues.

SUB-THEME: SCIENCE AS PART OF CULTURE

SA WISE: SOUTH AFRICAN SISTERS IN SCIENCE AND ENGINEERING NETWORK WITH SCIENCE CENTRES	POSTER NO: P12
<p><i>Presenter: Valerie Corfield</i> <i>University of Stellenbosch/Medical Research Council, South Africa</i></p> <p>The Association of South African Women in Science and Engineering (SA WISE) aims to strengthen the role of women in science and engineering (S&E) in South Africa. Implicit in its goals is to provide leadership and role models for young girls from the culturally-diverse groups of South Africa. Science Centres provide an interface between SA WISE and its target audiences. Networking activities include Science Cafés for school-learners, role model talks, topical issue discussions, professional workshops for women and "celebrations of S&E". Exhibitions, workshops and presentations by individual SA WISE-ers feature at many other events nationwide. These culturally-sensitive activities have helped banish culturally-entrenched stereotypes, and have enabled target groups to achieve in science subjects and S&E careers.</p>	
USING ASTRONOMY TO INSPIRE LEARNERS FROM SOUTHERN AFRICAN CULTURES TO TAKE UP CAREERS IN SCIENCE, ENGINEERING AND TECHNOLOGY	POSTER NO: P13
<p><i>Presenters: Marion West; Sam Rametse; Fikiswa Majola</i> <i>Hartebeesthoek Radio Astronomy Observatory, South Africa</i></p> <p>The night sky easily inspires wonder. It is accessible to all cultures and each culture has its own historical links with the night sky. It can thus be used as a starting point at science weeks, festivals and exhibitions to introduce learners across the various cultures in the Southern African region to the fascinating and exciting world of careers in astronomy and related fields. Methods developed over several years using the inspirational value of astronomy and aimed at increasing awareness of career opportunities in Science, Engineering and Technology (SET) are discussed and evaluated. Information is gathered from science weeks held in South Africa's Gauteng, Northwest and Northern Cape provinces, as well as in Namibia.</p>	
THE MUSEUM'S BAGS	POSTER NO: P14
<p><i>Presenter: Francisco Julián Betancourt Mellizo</i> <i>Universidad Nacional de Colombia Museo de la Ciencia y el Juego, Colombia</i></p> <p>The museum bag's is a project of The Museum of Science and Game of Universidad Nacional de Colombia (National University of Colombia), it was designed in the end of 2005 and it has developed 6 bags since then. There are several goals in the project: to improve the cultural and education conditions of outlying geographically populations; to create spaces for the interaction of marginalized populations with elements of knowledge; to bring people across of the use of games and common elements to subjects of science and technology. The project has been highly accessed because their easy mobility and transportability, it can reach marginalized populations. The poster presents the project and discusses its achievements, scopes and limitations.</p>	
MOTIVATING TO MATHEMATIC LEARNING IN A NATURAL HISTORY MUSEUM	POSTER NO: P15
<p><i>Presenters: Ana Dias¹; Bruno Ribeiro² (presented by Pedro Russo)</i> <i>¹Instituto de Emprego e Formação Profissional, Portugal; ²Museu Nacional de História Natural, Portugal</i></p> <p>This work is a partnership between a mathematics teacher and a museum professional who want to motivate students and their families, through museum visits, to learn mathematics, natural sciences and their history. It is also aims to encourage students to visit museums in leisure times with their families and friends. The visit shows that a museum isn't a place of "old stuff" but a place where everybody can learn from ancient objects, effortless and with funny moments. The visit was prepared especially for this audience. It highlights issues of sustainability of the planet and the importance of mathematics in scientific research in areas such as astronomy, biology, chemistry, geology and mineralogy.</p>	
USING NAMING OF ASTEROIDS TO POPULARIZE SCIENCES, TECHNOLOGY AND INNOVATION IN YOUNG PEOPLE	POSTER NO: P16
<p><i>Presenters: Pedro Russo¹; Orlando Naranjo²</i> <i>¹Universe Awareness, Germany; ²Universidad de Los Andes and Grupo de Astrofísica Teórica, Venezuela</i></p> <p>Asteroids discovered with a search program at Universidad de Los Andes, Grupo de Astrofísica Teórica, have being named by children participating in events organized by museums, science centers and universities, in order to popularize Sciences, Technology and Innovation. Until now, these events have being done in Brazil, Colombia, Norway, Poland, Spain, United Kingdom and Venezuela. The use of naming of Asteroids is of indelible significance for the kids that finally name it. Also, represents an innovative way to use University discoveries for the popularization of Science, Technology and Innovation. We will show a resume of these events, encouraging using any other discoveries, in a way that will help to bring, in an easy way, the new knowledge of Science to society. Also, represents a mechanism to strengthen ties of friendship, work and brotherhood.</p>	
CHEMISTRY A CORE FIELD OF SCIENCE: STRATEGIES FOR TEACHING, RESEARCH AND PUBLIC IMAGE	POSTER NO: P17
<p><i>Presenters: Ponnadurai Ramasami¹; Asunta Tuula²; John Canal³</i> <i>¹University of Mauritius, Mauritius; ²University of Jyväskylä, Finland; ³Simon Fraser University, Canada</i></p> <p>Chemistry is used to foster an understanding of the characteristics and changes that occur in everything that has mass and occupies space. The teaching and understanding of Chemistry are important for the students. Research in Chemistry is vital to sustain life on our planet. Chemistry plays an important role in our daily life and hence it is equally important to have a good public image of Chemistry. In the context of the International Year of Chemistry, this poster aims to improve the teaching of Chemistry, to promote research in Chemistry and to improve the public image of Chemistry. We hope to have participants for brainstorming in order to have ideas so that Chemistry can serve to the betterment of mankind</p>	

THE IMPORTANCE OF EXTRAORDINARY, BUT SIMPLE, ACTIVITIES TO INTEREST CHILDREN AND YOUTH IN SCIENCE AND TECHNOLOGY	POSTER NO: P18
<i>Presenters: Daniel Wetterskog¹; Allison Ruiters²</i> <i>¹The National Museum of Science and Technology, Sweden; ²Durban Natural History Museum, South Africa</i>	
<p>One of the main goals of the Swedish National Museum of Science and Technology is to encourage children and young people to find interest in difficult scientific subjects. Especially teenagers are picky and hard to motivate. How do we tickle their curiosity and awaken their lust for science? At the Swedish National Museum of Science and Technology we are active in creating pedagogical programs and events that create buzz and give rise to interest in younger communities and cultures.</p>	
INNOVATIONS AS GENERATORS - INVOLVING A NATION IN ONE EXHIBITION ON THE WORLD'S MOST IMPORTANT INNOVATIONS	POSTER NO: P19
<i>Presenter: Ann Follin</i> <i>The Swedish National Museum of Science and Technology, Sweden</i>	
<p>In 2012 the Swedish National Museum of Science and Technology will open a new exhibition on 100 Innovations. A new approach is that its content will be decided by the Swedish people. Through nationally representative surveys made among adults and children a first list of the world's one hundred most important innovations has been made. The list will continue to be voted on, added and commented on the web and social media, both before and during the exhibition. The chosen innovations will be displayed in an interactive and object based exhibition where the visitors will be our proud co-producers and contribute both with personal stories and new objects to our collections. What are the risks and challenges? An important question that arises for the museum as a national collector and preserver of historically important objects is how we handle the outcome of the project. Will we be obliged to display unorthodox material? The biggest challenge however, will probably be to lose the control.</p>	
LEARNING THE TECHNOLOGY THROUGH KNOWLEDGE AND CONSCIENTIOUS HANDLING OF THE DEVICES THAT SURROUND US	POSTER NO: P20
<i>Presenter: Jose Triano</i> <i>UNER (Universidad Nacional de Entre Ríos) and PUERTO CIENCIA, Argentina</i>	
<p>The development of an advisable technological culture would allow us, a safe, effective handling of objects and devices that we operated in our life. To prevent accidents by the use with domestic devices would have to worry educational and to professors. An advisable use and education could be avoided with. Mainly when there are children or adolescents in house. In a flooded world of technology, a formation is necessary that allows to discover concepts and technical knowledge of devices, devices that we used daily. We surrounded by objects and equipment that we used of different form, but how we were related to that technology that we must handle? We do it of conscious way? In our task we did not take well-taken care of. Each object and technology demand an effective knowledge and diverse capacities.</p>	
TO ENABLE TO STUDENTS IN CRITERIA OF SECURITY FOR THE DESIGN OF MEDICAL EQUIPMENT	POSTER NO: P21
<i>Presenter: Jose Triano</i> <i>UNER (Universidad Nacional de Entre Ríos) and PUERTO CIENCIA, Argentina</i>	
<p>Health areas in hospitals and clinics they count on innumerable equipment and auxiliary systems for the diagnosis and treatment of their patients. All this equipment has to be designed by specialized personnel considering all the strict criteria of security and controls in all the stages of its manufacture that is offered by the norms of each country. The purpose of this investigation is to provide a material of support and qualification to the futures bio-engineer of our UNER. That is a guide for them in the design of equipment. The first stage and most important reason, it's look for where the faults possible are due to anticipate and evaluate to be able to solve them in faster and economic form.</p>	
THE SCIENTIFIC ALPHABETIZATION IS A FORMATIVE SUBJECT: FROM GEN TO PROTEIN	POSTER NO: P22
<i>Presenters: Antonio Said; Acevedo Elba</i> <i>Universidad Metropolitana de Ciencias de la Educación, Chile</i>	
<p>Knowing how important is in our days the impact on the population of the scientific and technological development, we are proud to present this project that has enable us to bring closer the molecular biology techniques and the significant contribution of Bioinformatics with high schools students from 11 schools of Santiago, Chile. We made different experimental modules in Molecular Biology and Biotechnology, using a collaborative method of learning as well as a formal debate. The goal was to strengthen their scientific education and to develop and train their experimental skills so these students could apply their scientific knowledge and experimental techniques to new situations. During their work they were able to cloning and to express a protein of 65kDa.</p>	
LEVERAGE IS MOBILE: BUILDING SCIENCE LITERACY CULTURE THROUGH CONTENT DEVELOPMENT AND DEPLOYMENT FOR MOBILE DEVICES	POSTER NO: P23
<i>Presenter: Adeleke Mai Nasara Adeyemi</i> <i>Café Scientifique Nigeria, Nigeria</i>	
<p>Handy public understanding of science and technology is critical for citizen-driven development. The public, at every stratum, must be kept informed – on the issues and persons, trends and quandaries in the science and technology of the day – to have a culture of science in the public arena as a veritable component of the social conversation. Hence GSM telephony holds great promise for bridging the Scientia Divide – wherein lies great untapped opportunities for mediating change in society through science literacy. Particularly for young people, mobile content development and deployment for science literacy acculturation will raise the Science Literacy Quotient (SLQ: sleek) of the populace. This endeavour will serve the science centre community in many ways, like pre-Science Centre visit 'preparatory classes.</p>	

SCIENCE MUSEUMS, BIODIVERSITY AND ENVIRONMENTAL SUSTAINABILITY	POSTER NO: P24
<p><i>Presenter: Denise Studart</i> <i>Fiocruz, Brazil</i></p> <p>What is the role of museums in the current scenario of environmental challenges? Museums must have an active attitude in disseminating and discussing issues relevant to society, while offering greater cultural inclusion. In June 2010 it was held in Rio de Janeiro, Brazil, the Symposium Museums, Biodiversity and Environmental Sustainability. The main objectives were to promote a debate on the role of museums in addressing environmental challenges in the 21st century and how to find creative ways of working in this new scenario. Due to its strong performance through informal education and popularization of science, museums have an important mission in fostering the development of a critical view on issues concerning the sustainability of the planet and encouraging global solidarity.</p>	
MONASTIR SCIENCES PALACE	POSTER NO: P25
<p><i>Presenter: Hédia Ben Ghenia Jaouadi</i> <i>Monastir Sciences Palace, Tunisia</i></p> <p>Monastir Sciences Palace is a non-administrative establishment created according to the law n° 36-2007 of 4th June, 2007 and placed under the Ministry of Higher Education and Scientific Research. Its mission is to create an intellectual, cultural and scientific dynamics among the different categories of citizens. Its objectives: contributing to the promotion and dissemination of sciences for citizens; raising awareness and educating the public about the methods and the scientific discoveries; disclosing the scientific culture and the culture of entrepreneurship; organizing distance conferences; encouraging the creation of innovative companies and helping higher education graduates to create their own projects. Monastir Sciences Palace areas: entrepreneurship and job areas; practice areas; multimedia areas; scientific and cultural areas; edition areas; Mobile Sciences.</p>	
LASCAUX, THE ARTS & SCIENCES INTERNATIONAL EXHIBITION	POSTER NO: P26
<p><i>Presenter: Olivier Retout</i> <i>General Council of Dordogne, France</i></p> <p>Lascaux the international exhibition is a large and exceptional touring exhibition (800 m² / 8612 sqft) based on newly created reproductions of the fabulous animal paintings of the Lascaux Paleolithic cave (closed to the public since 1963) realized with an absolute accuracy including all micro-relief of the stone and using the same natural pigment for paintings. The cultural and educative programme that integrates original documents (photography, films, video, sculptures, interviews, etc.), and many interactive, immersive and participative exhibits is validated by a scientific committee chaired by Pr Yves Coppens of the French Academy of Sciences. Conceived as an Arts&Sciences exhibition, Lascaux the international exhibition, is both a cultural, educational and emotional product to be presented with exclusivity in the best museum exhibition hall of the major cities in north-America, Australia, Africa and Asia since 2013. By giving elements to understand how art arose in the Paleolithic era and by exposing the most important reproductions and scientific results which have been produced since 1940, Lascaux, the international exhibition intend to grasp the mystery of a multiple and subjective reality which is imperceptible by only one science.</p>	
CROSS CULTURAL CHEMISTRY	POSTER NO: P27
<p><i>Presenter: Marthinus Schwartz</i> <i>UNIZUL Science Centre, South Africa</i></p> <p>Chemistry has been taught using the three levels of chemical representation of matter as outlined by Johnson, comprising the macroscopic, symbolic and particulate levels. Research that has shown that the macroscopic level is the easiest to comprehend and suitable for almost all ages although the age at which the other two levels are to be introduced is more subjective to the developmental level of the child/children. A pilot study will be conducted with rural South African pupils to evaluate their competence with regard to their understanding of the 'matter concept' at the macroscopic, symbolic and particulate level. It will be an indicator to how the different levels are being communicated and what role science centers can take to improve this.</p>	
MUSIK4KIDS, AN EXHIBITION ABOUT INSTRUMENTS, SOUND PHYSICS AND MAKING MUSIC	POSTER NO: P28
<p><i>Presenter: Michael Bradke</i> <i>MobielsMusikMuseum, Germany</i></p> <p>Music is a very old part of human culture. Building musical instruments needs lots of experiments, experience, and knowledge about physics. The exhibition musik4kids was shown at museums, children's museums, science centres and the Frankfurt Music Fair, leading kids to understand the grouping of instruments by using giant instruments and sound-sculptures like Walking-Bass, Bodyweight-Monochord or Monster-Flute. 10-40 installations for 300 to 3000 sqm seduce kids, teens and adults to not only learn about physics of instruments but to develop game rules and make music together. Since music is part of all human cultures this exhibition brings together people from different cultural backgrounds to play and experience, even without language borders. See www.musikmuseum.com for more info.</p>	
AN EXPERIENCE OF MULTILATERAL COOPERATION: PROMOTING CULTURAL EXCHANGES THROUGH TECHNICAL EXPERTISE - TRANSFER OF KNOW HOW FROM THE CITÉ DES SCIENCES ET DE L'INDUSTRIE, A UNIVERSCIENCE SITE IN PARIS TO THE SCI-BONO SCIENCE CENTRE IN JOHANNESBURG	POSTER NO: P29
<p><i>Presenters: Marie-Sophie Mugica¹; David Kramer²; Caroline Turré³</i> <i>¹Universcience and Cité des sciences et de l'industrie; ²Sci-Bono Science Centre, South Africa; ³Universcience, France</i></p> <p>As part of a bilateral sisterhood agreement between the French Région Ile de France and the South African province of Gauteng, the Cité des sciences et de l'industrie/Universcience was asked to provide institutional and technical support in respect of science and technology exhibitions to Sci-Bono Discovery Centre. The transfer of know-how that has taken place since 2006 has facilitated cultural exchanges between the two organisations, which has also been supported by an exchange programme for "Professional Culture" of the French Ministry of Culture. La Cité provided Sci-Bono with technical files which enabled Sci-Bono to locally manufacture four exhibitions. This has involved Sci-Bono to adapting certain of the elements of the exhibitions to fit local culture and the South African context. The process has shown the importance of cultural adaptation in exhibits. The sessions will reveal the extent to which cultural adaptation has contributed to the success of the project.</p>	

THE FUTURE IS HERE AND IT'S TINY! DISCOVER THE LITTLE SCIENCE THROUGH SCI-BONO'S SPEAK2ASCIENTIST NANOTECHNOLOGY SERIES	POSTER NO: P30
<i>Presenter: Thandi O'Hagan Sci-Bono Discovery Centre, South Africa</i>	
<p>In 2010 the Sci-Bono Discovery Centre hosted a series of five public talks on Nanotechnology. Based on the science café concept, the series formed part of the centre's annual Speak2aScientist programme and was funded through the Public Engagement with Nanotechnology (PEN) programme and administered by the South African Agency for Science and Technology Advancement (SAASTA) on behalf of the Department of Science and Technology (DST). All of the Nanotechnology talks were presented by leading South African scientists. Each presentation was filmed and edited by Stonefish Studios into podcasts and mobi clips. The Speak2aScientist poster presentation is an audiovisual representation of the edited talks and the screening will be supplemented with a poster of the flyers used to advertise the programme.</p>	
CURRENT TRENDS IN SCIENCE RESEARCH THROUGH AN ORIGINAL ITINERANT EXHIBIT	POSTER NO: P31
<i>Presenters: Marcela Fejes¹; Ana Maria Navas¹; Silvia MR Sant'anna²; Talita Carbonese¹; Marisa Domingos² ¹University of Sao Paulo Center for Environmental Research and Training, Brazil; ²Botanic Institute of Sao Paulo, Brazil</i>	
<p>An itinerant exhibit about air quality was conceived and developed as part of the science communication activities developed by the Center of Environmental Research and Training of the University of São Paulo. The main goal of this initiative was to raise the awareness of the local community of Cubatão city about environmental issues researched by the Center. Thus, air monitoring, indicators of air pollution, impacts of thermal power plants and environmental history of the city were topics considered. The exhibit, projected as an open box that can be walked through, visited seven neighbourhoods and six public schools. Furthermore, a public perception survey was developed to characterize visitors' attitudes, interests and concerns about topics, texts and exposed objects.</p>	
DEMONSTRATE	POSTER NO: P32
<i>Presenters: Maria Calá¹, Maria Luján Castro², Rosana Ferrati^{1,2}, Ana Silva¹, Silvia Stupino¹ ¹Civil Solidarity Aid Association, Argentina, ²National University of the Centre of Buenos Aires Province, Argentina</i>	
<p>Demonstrate (like demonstrate yourself) is a work experience with teenagers, carried out by an interdisciplinary team that belongs to a nongovernmental organization (NGO) in the town of Tandil (120000 inhabitants), located in the province of Buenos Aires, Argentina. The project trains, in a rotating way, a group of teenagers and young people between 11 and 17 years old, from different districts of the city, for the planning, management and organization of a two-day show that offers various interactive proposals to their neighbourhoods. By means of workshops and stands, they have access to real communication, culture, science and technology in coordination with the University, Municipality, Secondary Schools and neighbourhood NGOs. Knowledge and skills rescued in each neighbourhood are included in the show. Demonstrate promotes the self-confidence and increases the self-esteem.</p>	
HAVE FUN EXPERIMENTING WITH SCIENCE	POSTER NO: P33
<i>Presenter: Maria Luján Castro National University of the Centre of Buenos Aires Province, Argentina</i>	
<p>Have fun experimenting with science is an Extension Program of the Faculty of Science (UNBPBA-Argentina) whose main object is generating interest in science, among people of all ages and backgrounds, by the presentation of devices and demonstrations, mainly physics, carefully chosen to be entertaining as well as educative. At present it has almost 40 interactive modules with hands-on experiments and the work-team is integrated by teachers, students and technicians from Science Faculty (UNCPBA). The origin was a project carried out with students of a technical school in a suburb of the town of Tandil, in which the school students under the guidance of teachers worked on the construction of devices.</p>	
YOUNG SPACE: AN AREA OF DISSEMINATION OF SCIENTIFIC AND TECHNICAL CULTURE IN THE BUENOS AIRES INTERNATIONAL BOOK FAIR	POSTER NO: P34
<i>Presenters: Maria Alvarez; Maria Luján Castro Fundacion Solydeus, Argentina</i>	
<p>Solydeus Foundation, whose mission is to promote and develop activities in science, technology and innovation to arouse curiosity and concern of people to discover and appreciate the surrounding world phenomena, is the protagonist of one of the most important cultural and editorial events in Latin America: the Buenos Aires International Book Fair. This experience of popularizing science and technology developed in the field of non-formal education in an unconventional space, involves children, school delegations, youth and adult visitors, and contributes to the motivation and creation of a scientific and technical culture in the Argentinian society. The goal of the "Young Space", is reached when the visitors are involved with learning, with a question, with a desire to deepen their knowledge of what they experienced in the activity involved, incorporating scientific and technological knowledge for their daily lives.</p>	
THE RISK SOCIETY AN OPPORTUNITY FOR THE DEVELOPMENT OF SCIENCE AND TECHNOLOGY FAIRS IN ARGENTINA YOUTH	POSTER NO: P35
<i>Presenter: Maria Alvarez Fundacion Solydeus, Argentina</i>	
<p>The aim of this study was to investigate the appropriation of knowledge in science and technology in three communities located in the southern region of the province of Santa Fe (Bustinza, Cañada de Gómez and Pujato) in the period ranging between 1969 and 2005 from projects that originated from local issues, which had been presented in Youth Science and Technology in Argentina. Its purpose was to discover the effects that relevant research had on the people to understand these problems, that were analyzed from the point of view of training and reflection of a participatory way of thinking and acting to solve new situations in each of these communities and make recommendations on the methodologies used in the processes of diffusion and techno-scientific literacy in education systems. The thesis is framed within the phenomenological approach and uses symbolic interaction as a model, and the techniques used were the interpretive analysis of personal narratives and document review.</p>	

P46 SPACE SCIENCE AS A CATALYST FOR SCIENCE AWARENESS	POSTER NO: P36
<p><i>Presenter: Elisa Fraser</i> SANSA Space Science, South Africa</p>	
<p>The Space Science Directorate of the South African National Space Agency (SANSA Space Science) located in Hermanus, South Africa is the only facility that houses a science center within an approximately 200 km radius. The SANSA Science Center is the primary awareness center for Space Science in South Africa, and aims to reach learners, educators, students, and the general public. Space Science is an amazing tool for promoting the fun of science and for conveying educational concepts that are part of the curriculum. This poster presentation will showcase the success of using space science as a driver for creating excitement, and enjoyment in science. In addition the presentation will include some overviews of the SANSA programs and will highlight the benefit provided by the SANSA Space Lab.</p>	
ROOTED IN YOUR WORLD - EXPLORING NEW WORLDS; EMPOWERMENT THROUGH SCIENCE COMMUNICATION	POSTER NO: P37
<p><i>Presenter: Robert Inglis</i> Jive Media Africa, South Africa</p>	
<p>Independent science communication agency, Jive Media Africa, uses innovative strategies to convey messages in accessible ways. Their use of comics and cartoons has proven highly effective for communicating science to public audiences from adults to children, and even to scientists themselves. Since comics are perceived as fun and interesting, rather than boring and difficult, an immediate engagement space is created. But it goes deeper than that; through careful use of familiar spaces and contexts, and through personal relationships formed with characters, the medium also creates trust – leading to acceptance and ownership of new knowledge. Celebrating people’s existing knowledge creates a firm foundation upon which to build new knowledge - and from which to step into the world and apply it.</p>	
SOFT PUPPETS, HARD SCIENCE	POSTER NO: P38
<p><i>Presenter: Irene Schoeman</i> Sci-Enza, South Africa</p>	
<p>Puppets theatre, as teaching tool or form of entertainment, is especially popular amongst young children. This poster will present the use of puppet theatre at Sci-Enza to communicate science to learners in the foundation phase. The aim of science puppet shows was to a) introduce basic scientific concepts to learners, b) institute positive attitudes towards these topics and c) encourage discussions and reasoning abilities. One of the major challenges in South Africa is the barriers imposed by the wide variety of different cultures and languages of citizens. The use of puppets to promote science and teach topics in the absence of any cultural biases will be evaluated.</p>	
KNOWING CREATION: SCIENCE EDUCATION IN ISLAM	POSTER NO: P39
<p><i>Presenter: Najma Mohamed</i> University of Stellenbosch, South Africa</p>	
<p>The definitive purpose of education in Islam is to facilitate the trusteeship of humankind on Earth. This trusteeship should be embodied in a life lived in accordance with Divine Laws in the Qur’an and the book of Nature. Science education, which will assist humankind in ‘reading’ Nature, is an integral part of the knowledge-structure of Islam. Couched within an ethical framework which delineates the parameters of human interaction with Creation, science education should enable the Muslim to understand the creative order in the Universe and to live in justice and harmony with all Creation. Enlisting the vibrant Muslim educational landscape is essential in constructing a science education paradigm which recognises and respects varied interpretations of reality.</p>	
THE BOYDEN OBSERVATORY SCIENCE CENTRE: OUR ASTRONOMICAL HERITAGE AND OUR ENVIRONMENT	POSTER NO: P40
<p><i>Presenter: Matthiam Hoffman</i> Boyden Observatory Science Centre, South Africa</p>	
<p>The Boyden Observatory’s unique character as a public facility is enhanced by its picturesque setting on a koppie that offers spectacular views of the Free State veld. The aim of the Boyden Heritage Project is to preserve Boyden’s rich astronomical heritage and share it with the public through interactive displays within the context of a nature conservancy. The project includes the restoration of the Boyden Main Building, a beautiful example of 1920s Free State architecture. The urge to explore the Universe is motivated by deep philosophical and cultural yearnings. With the addition of the historical exhibits, visitors will gain respect for the enormous debt we owe to those scientists who have laid the foundation for our modern world.</p>	
LEARNING ACTIVITIES IN THE INTERNATIONAL YEAR OF BIODIVERSITY, 2010	POSTER NO: P41
<p><i>Presenter: Grace Kimble</i> Institute of Education, United Kingdom</p>	
<p>Pilot Study: Using natural history to learn about the natural environment. What is the best way to integrate natural history collections and outdoor settings when learning about local species? This poster presents first year doctoral research in biodiversity education. Over 30 organisations that provided activities for schools in the International Year of Biodiversity (IYB 2010) responded to a survey, with details of programmes. Many themes have emerged about the importance of: curriculum content, session format and content, and the roles of staff. There is clear potential for outdoor environment sites to work in partnership with natural history collections to develop understanding, by combining real experiences with moving, living species and 3D specimens that can be handled. A pilot programme investigated learning by two classes (age 10) who participated in new workshops with a) access to the Natural History Museum’s wildlife garden and natural history collection and b) access to the NHM wildlife garden alone. Pupils’ prior knowledge was assessed using a homework activity. Family experiences played a stronger role than curriculum topics. Conversations were recorded in the sessions using microphones, and a post visit session at school addressed pupils’ perceptions of the workshops. This pilot raised questions and recommendations about best practice in linking indoor and outdoor learning about the natural world. Future research will use action research methodology to further refine effective pedagogy for using natural history collections and outdoor sites. This research aims to assist in realising the full potential of natural history collections and outdoor sites for contemporary, relevant science learning about the importance of biodiversity.</p>	

CONTRIBUTIONS FROM THE MUSEUM OF SCIENCE AND TECHNOLOGY OF SCHOOL OF MINES UFOP FOR CULTURAL PROGRAMMING OURO PRETO

POSTER NO: P42

Presenter: Gilson Nunes

Museum of Science and Technology of School of Mines University Federal of Ouro Preto, Brazil

The Museum of Science and Technology of School of Mines UFOP (MCT) operates in the preservation, research, documentation and dissemination of scientific heritage of the first Brazilian institution dedicated to teaching geology and metallurgy. The MCT in conjunction with other museums are doing a thesaurus, in Portuguese, to be used also for museological communication in exposures and in their educational activities. These activities are part of a monthly program that is incorporated into the city's cultural programming, how the National Week of Museums, in May, when the MCT represents more than 15% of the activities the entire city of Ouro Preto or in October, during the National Week of Science and Technology, that was included in the school calendar.

SIBO - REACHING OUT TO CHILDREN THROUGH STORIES

POSTER NO: P43

Presenter: Ginny Stone

Self-Employed, South Africa

Hey! Pick that up! Didn't you just hear what Sibó said?" (Overheard outside the hall after having just read a Sibó story to 400 kids.) Children relate to Sibó, the feisty little heroine in Ginny Stone's books. They get enmeshed in the storyline and end up being fascinated by the facts unwittingly absorbed. Subjects that might appear difficult and unfathomable to small children are broken down, demystified, and made easy to understand. Thereby sparking an active interest in a subject early in life. Kids would often much rather listen to a storybook character than to an adult. Sibó has set her heart on making a difference to the lives of young children – in more ways than one.

SCIENCE WONDERLAND: NEW FUN, FAMILY RECREATION PLACE!

POSTER NO: P44

Presenter: Norzilawati Kamsor

National Science Centre, Malaysia

The Science Wonderland is a new attraction at our landscape. Despite having 10 permanent galleries inside our building, we also have 5.7 hectare landscape that has been developed recently. Science Wonderland offers new experiences for the visitors by engaging with the giant outdoor exhibits, water plaza and other main attractions. Through our experience, it is quite challenging to introduce or explain about biology or life exhibits inside a closed environment. Which means that, sometimes in order to portray any exhibits related to biology open environment give more meaningful effects to the visitors. At our Science Wonderland, we have Nature Secrets Lab and Garden of Nature which provided some display about plant and animals for the visitors to explore. Beside that, we also have some education programs related for the visitors to join by booking or walk in. Since our climate is always sunny with average 28-37 degree Celsius throughout the year, we need to create an environment that can attract people to go to our Science Wonderland. Through our experience, we found out that the water elements and shading trees/ structures are the best attraction to pull them in. For that, we have created some water plaza, fountains, shading area, exercise trail, activity arena and other facilities that will encourage family activities. So far, our Science Wonderland has attracted so many people and has received so many bookings for many events by the outsider. Such as 'Solar Competition, Treasure Hunt, Family Day, Futsat Competition and many others. We believe that The Science Wonderland can offer more to the public and serve as an open area for the whole family to learn science in an open environment. Visit our website to see some information about our landscape at www.psn.gov.my.

SCIENCE TEACHER AS CULTURE BROKER: IMPLICATIONS FOR SCIENCE TEACHING AND LEARNING IN DEVELOPING COUNTRIES

POSTER NO: P45

Presenter: Toyin Owoyemi

Adeyemi College of Education, Nigeria

The goal of science teaching has been to transmit to students the knowledge, skills, and values of the scientific community. To achieve this goal, individual learner needs to cross from his own community worldview to that of Western worldview due to the fact that science is a subculture of Western culture. Thus, students with a much different worldview face a cross-cultural experience whenever they study Western science especially in non western countries like Nigeria. For these students to master and critique a Western scientific way of knowing without losing something valuable from their own cultural way of knowing requires science teachers developing in students the facility to cross cultural borders from their everyday world of family and tribe subculture, into the subculture of school science. Many students do not cross this border smoothly because of cultural conflicts and the level of assistance that most students receive when they attempt to negotiate these cultural borders will influence their success in scientific endeavour. Therefore there is a need for science teacher to play the role of a "culture broker". A culture-broker science teacher will help student move back and forth between the culture of their own community and that of the Western science, and will help them deal with cultural conflicts that might arise while effective learning of science takes place. This poster reviews an innovative way of how students can cope with western worldview by transcending cultural borders between their everyday culture and the culture of science while the teacher plays the roles of a culture broker.

SUB-THEME: THE VALUE OF INDIGENOUS KNOWLEDGE SYSTEMS

COSMIC SERPENT: BRIDGING NATIVE AND WESTERN LEARNING IN MUSEUM SETTINGS

POSTER NO: 46

Presenters: Victoria Coats¹; Ashley Teren²

¹Oregon Museum of Science and Industry, USA; ²Indigenous Education Institute, USA

Cosmic Serpent is a National Science Foundation-funded professional development project led by the Indigenous Education Institute (IEI) and the U.C. Berkeley Space Sciences Laboratory (UCB) to increase the capacity of museum practitioners to bridge native and western science learning in informal settings. This project asks: How can informal science educators develop programs that enable all learners to cross cultural borders—in this instance, the culture of Western science and the cultures of long-resident Indigenous peoples? The multiple meanings represented by the cosmic serpent, a Native symbol connected to fundamental concepts in earth, space, life, and environmental science, help to bridge the two worldviews, provide museum practitioners with tools to engage native audiences, and bring indigenous perspectives to all visitors.

A NOVEL APPROACH TO RURAL ENVIRONMENTAL EDUCATION

POSTER NO: 47

Presenters: Martin Potgieter; Sanet Brits; Bronwyn Eagen; Annelize Potgieter

University of Limpopo, South Africa

No-one is denying the extremely important role that the environment plays in the prosperity and ultimate survival of urban and rural communities across the world. All of us thus have a responsibility to live as sustainably as possible by conserving as much as possible. It is the responsibility of educational institutions to bring across the concept of sustainable living through environmental education. From Grade 10 to 12 learners come into contact with aspects of Biodiversity, Pollution and Conservation. Although the issue of environmental education in South Africa is currently being addressed through the curriculum of Life sciences at school level it is done within severe time and budget constraints; this is where the multi-purpose Biodiversity Centre at the University of Limpopo comes in play.

THE CURVE IN NANOTECHNOLOGY, FEMALE LEARNERS' KNOWLEDGE, ATTITUDES AND CONCERNS

POSTER NO: 48

Presenters: Sanet Brits; Annelize Potgieter; Sandile Rikhotso; Martin Potgieter; ME Masemola

University of Limpopo, South Africa

Nanotechnology, the manipulation of materials at the scale of atoms and molecules, is one of the most significant scientific transformations of the 21st century. To succeed in this area, individuals will need skills in mathematics, science and technology. However, distinct gender traits exist. Reasons for the imbalance between male and female participation in various areas of technology are attributed to factors ranging from parental and cultural influence, the absence of female role models and gender biased computer games. This research explored young female's basic knowledge, attitudes and concerns about technology, particularly regarding knowledge and concepts related to nanotechnology. Ten secondary schools from the Capricorn district in the Limpopo Province participated, via a semi-structured questionnaire.

IMPACT OF TECHNOLOGY TRANSFER ON GROUNDNUT CULTIVATION ON FOOD SECURITY IN SOUTH AFRICA

POSTER NO: 49

Presenter: Alana Pretorius

ARC-GCI, South Africa

The nutritious groundnut (*Arachis hypogaea* L.) is not indigenous to South Africa but is cultivated widely. Television, radio, cellphones, internet, pamphlets, articles, collaboration with Government Departments, universities and information days are used to distribute the Agricultural Research Councils' knowledge. Correctional Facilities were visited. Farmers using correct cultivation methods minimize health risks by eliminating aflatoxin contamination. The ARC runs cultivation programs in five SA provinces. Collaboration resulted in foreign scientists' visiting the ARC to understand our successful technology transfer methods. Contacts in KwaZulu Natal were used as extension officers to promote the appropriate technologies. Government remains the key-funder as they can provide government-guaranteed loans. Informed farmers carry the knowledge obtained through to making poverty-reduction a reality.

INDIGENOUS KNOWLEDGE FOR SUSTAINABLE DEVELOPMENT USING ECOLOGICALLY BASED APPROACH

POSTER NO: 50

Presenter: Elizabeth Auma Okiri Odoyo

Kenya Agricultural Research Institute, Kenya

Communication to the public will be developing a strategy for local involvement, participatory technology development, information dissemination and communication. Partners and science centres will be identified and their potential contributions for creating awareness and solving the problem by demonstrations, utilizing participatory rural appraisals, conservation strategies and interdisciplinary collaborations will be assessed. Selection of appropriate information channels and partners will be identified and informed through interpersonal communication. Personal briefings will be organized between science centres, researchers and the community then the Non- governmental organizations approached separately. Finally, the mass media will be approached for information channel for example newspapers, radio, TV and posters. Researchers will be informed through Articles in research journals and presentation to students will be appropriate.

SUB-THEME: RECOGNISING THE MULTI-CULTURAL ROOTS OF SCIENCE AND TECHNOLOGY

A COMPARATIVE EVALUATION OF EDUCATIONAL PROGRAMMES AT ZOOLOGICAL INSTITUTIONS IN THREE COUNTRIES

POSTER NO: 51

Presenter: *Elize de Jager*

National Zoological Gardens of South Africa, South Africa

Conservation education is a key function of the National Zoological Gardens of South Africa (NZG). It is necessary to work on multiple cultural fronts in an effort to address the variety of threats to wildlife and their habitats. The evaluation of conservation education programmes allows us to confirm that our programmes are bringing about the intended changes in our visitors' knowledge, attitudes and behaviour. The aims of this study are to evaluate the conservation educational programmes of the NZG and to benchmark them against those of other international zoos. A literature review was done in order to: establish the place of zoos in modern society; establish the place of zoos in conservation education; and to establish the reasons why the evaluation of conservation education programmes is needed.

EFFECTS OF NEONATAL OXYGEN DEPRIVATION IN THE DEVELOPING BRAIN: RELEVANCE OF SCIENCE COMMUNICATION AS A PREVENTIVE ACTION TO MINIMIZE THE EFFECTS OF ANOXIA AND PROMOTE SOCIAL INCLUSION

POSTER NO: 52

Presenters: *Maria Ines Nogueira¹; Sivia Honda Takada²; Paulo Hitomi Ito³; Wilma Allemandi²; Roberto Torres Tangoa⁴; Barbara Milan Martins³*

¹Estacao Ciencia da Universidade de Sao Paulo, Brazil; ²Institute of Biomedical Sciences, Brazil; ³Institute of Psychology, Brazil;

⁴Institute of Biomedical Sciences, Brazil

Neonatal anoxia is a worldwide clinical problem leading to serious and lasting consequences. We improved a model to simulate anoxic condition in neonates rats under controlled conditions. The results showed impairment of behavior and damage to neuronal and glial cells in the anoxic group. What confirmed the need of awareness of the problem, right diagnostic and suitable therapy to minimize those effects. So, a mini-course was organized to teachers and caregivers to alert them of those scientific findings and discuss how society, schools and science centers are prepared to perform public inclusion. The activities changed their concepts on disabilities and demonstrated the relevance of science communication for better quality of life.

YOUNG UNIVERSITY MULTI CULTI

POSTER NO: 53

Presenter: *Silvia Prock*

University of Innsbruck, Austria

The program "Young University multi culti" is a program of the Children's University of Innsbruck, Austria, for children between 8-12 years with migration background. These children, who learn in the Integration House of the CARITAS in Innsbruck, are offered 9 different workshops at the University of Innsbruck, so that they get into contact with the University and with science and humanities. They get to know that education is important and that University is a possible education aim for them. More information, photos and films see http://jungeuni.uibk.ac.at/ver_multiculti.html

SCIENCE ACROSS CULTURES: MULTICULTURALISM, UNIVERSALISM AND SCIENCE EDUCATION

POSTER NO: 54

Presenter: *Msizi Khathide*

SANSA Space Science, South Africa

Many questions are currently being asked about Multiculturalism and the curriculum. The traditional forms of knowledge that assume Western thought should compose the school curriculum has recently come under fire. Seeing that there are many cultures the questions are justifiably asked as to whose culture are we teaching? Whose knowledge is of most worth? Who benefits and who is harmed by the current approach to curricula? Universalists also refuse to see and recognise non-western approaches to science as science but only acknowledge their contributions to western science. Further they state that controversies about the different cultural approaches to knowledge should not be part of school science. The poster will focus on discussion between Multiculturalism and Universalism in this age of education reform and which would be a potential solution in increasing the number of women and other marginalised groups in South Africa.

BUILDING BRIDGES: CONNECTING SCIENCE AND CULTURE THROUGH CROSS-CULTURAL DIGITAL STORYTELLING

POSTER NO: 55

Presenter: *Mzamose Gondwe*

University of Western Australia, Australia

This project examines Australian and Malawian students' connections between scientific and cultural knowledge at the Gravity Discovery Centre (GDC) in Australia. This project has developed two activities, a connecting science and culture story box and digital storytelling, to help students (Aboriginal and Malawian) recognise and value the confluence between scientific and cultural knowledge from a variety of cultures. The digital storytelling is an extension of the story box activity where students develop their stories into short personal narrative films. These activities are being conducted through the GDC, a science enrichment centre in West Australia. This poster session will showcase student films, preliminary data on student perceptions of scientific and cultural knowledge and evidence on the impact on students of producing digital stories that connect science and culture.