



the global network of science academies

IAP – the global network of science academies

Science Education Programme (SEP) 2014 Biennial International Conference

28-30 October 2014, Beijing, China

Beijing Declaration on Science Education and Science Literacy

The IAP SEP 2014 Biennial International Conference was held in Beijing on 28-30 October 2014, hosted by the Commission on Education for Children of the China Association for Science and Technology (CAST), the China National Commission for UNESCO, the Children and Youth Science Centre (CYSC) of CAST, and the Chinese Academy of Sciences. The International Conference attracted more than 130 speakers and participants from 19 countries.

Under the main theme ‘Challenges and Opportunities of Inquiry Based Science Education (IBSE)/Science, Technology, Engineering and Mathematics (STEM) Education’, sessions were devoted to ‘IBSE and Technology Education’, ‘Student Outcomes Assessment’, ‘IBSE and National Development’ and ‘Science Outreach and Society’. These four sessions engendered animated and constructive deliberation, culminating in the recommendations and outcomes in this Beijing Declaration. The Beijing Declaration was adopted by the IAP SEP Global Council in its meeting on 30 October in Beijing.

This Beijing Declaration reaffirms that, after nearly 25 years of experience throughout the world, it has been proven that IBSE/STEM education – from preschool upwards – enhances the curiosity and creativity of children, and improves their language and numerical literacy. Moreover, IBSE/STEM education enables children and young people to think critically and to question certain cultural, social and consumption fashions unless they have been proven by evidence to be beneficial. In addition, IBSE/STEM education not only assures the human resources necessary for the green and clean scientific, engineering and technology devices and systems needed to combat the challenges of global poverty and global climate change, but also provides the world with a rational and discerning citizenry that should help ensure global peace and security.

Therefore the Beijing Declaration now:

- Calls on all IAP member academies of science to redouble their commitment to IBSE/STEM education, including reaching out to their national ministries of education, their national UNESCO commissions and their national missions in UNESCO.
- Calls on industry to assist national academies of science and their national governments to enhance IBSE/STEM education policies and initiatives to ensure the formation of the creative and innovative human capital that will enable their own enterprises to remain competitive in the increasingly fast-paced science and technology-based development environment.
- Calls on foundations, charities and donors to sponsor the roll-out of IBSE/STEM practices, especially in developing countries.
- Calls on China, the host nation of the Beijing Conference, and other nations with rich experience in IBSE/STEM and science outreach activities to share their experiences with the world and to assist in capacity building efforts in other countries, especially developing countries, wishing to implement IBSE/STEM.
- Calls on the United Nations Educational, Scientific and Cultural Organization (UNESCO) to include IBSE/STEM in the programme of the UNESCO World Education Forum in Incheon, Korea, in May 2015, and to incorporate IBSE/STEM for quality education and lifelong learning into the United Nations post-2015 development agenda.