

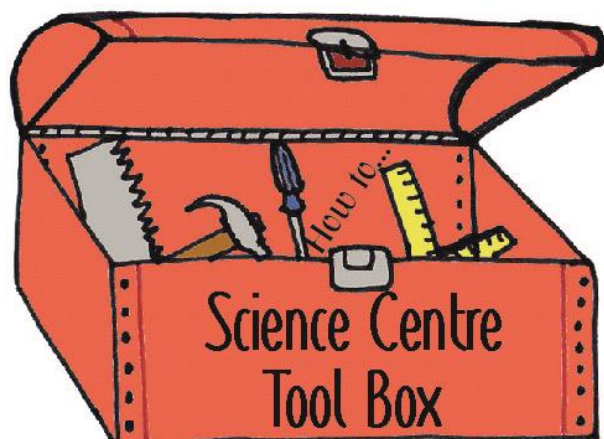
**SCIENCE CENTRE
CAREER AWARENESS ACTIVITIES**

Input received from SC's

compiled by

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This excerpt forms part of the
SAASTEC TOOL BOX



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Background

The Department of Science and Technology published a Science Engagement Framework in December 2014 that outlines an important role for science centres. The document states that science centres are expected to support the DST's 3 strategic aims by:

"... (a) Science for the public; (b) Science education support and (c) Careers in Science. "

These aims align to the various national skills development priorities that all acknowledge the critical need to develop SET skills.

The purpose of this document is to stimulate a discussion in SAASTEC about how member science centres can respond to DST's expectations and how SAASTEC as a whole and each science centre might start to plan activities that will assist in achieving the goals of the Framework. The following is a set of ideas aimed at stimulating discussion specifically about providing SET career education. These ideas are not a complete list of possibilities.

By SET career education, we mean all activities, programmes and events that can be offered by science centres and which aim to improve career awareness and understanding of post-school opportunities for study, skills development and employment. The reasons for offering SET (and other) career education and support is to assist school leavers and youth in general to manage their school-to work transitions. School-to-work transition generally refers to the life-changing period during which young people exit the structured and managed environment of secondary schooling and embark upon a post-secondary future that includes study, training and work. It also includes helping to prepare young people to cope with challenges such as unemployment. Successful navigation from the familiar world of school to the unfamiliar world of tertiary study, training and/or work or unemployment is difficult without support. Career counselling includes the following main components:

- Providing information about all matters relating to the preparation of school leavers for their post-school lives and careers so that they are aware of their options and of the decisions they will need to make;
- Providing advice and guidance to assist individuals to take informed decisions.
- Offering psychometric assessment and testing that allows individuals to gain insight into their interests, strengths and weaknesses so that they can plan more effectively.

Limitations and challenges

It is important to acknowledge that there are many limitations and challenges that must be addressed before any of these activities can be undertaken by a science centre. These include:

- **Funding:** Unless funds are available, science centres will have major restrictions on how much they can do in respect of career education. This is an area that many companies like to fund because it often helps them to identify potential bursary candidates;
- **Skills:** Career education relies on having skilled, experienced and, in the case of psychometric assessment and counselling, properly qualified and registered staff. This may require science centres to make use of partnerships with HEIs or to have partnership arrangements with professionals in the field.
- **Facilities and Resources:** Career education needs space and resources that many science centres may not have and this will limit what can be done. Science centres can,, however, do many of these activities at schools or other venues.

11 Ideas that address three areas of career education

The following 11 ideas address these three areas of career education in general but they apply to SET education as well.

Psychometric Assessments & Counselling

Most learners do not have access to qualified counselling. Science centres are ideal locations to provide such services but most science centres cannot afford to provide these services. It may be possible, however, for science centres to partner with universities so that they can make use of psychometry or psychology students and interns or to partner with professionals who can offer services through and at the science centre. It is also possible to look for corporate sponsorships that will fund a limited assessment programme.

Career & Bursary Information Library

The most important function that science centres can undertake in this area is the provision and distribution of career information about such issues as post-school study and employment opportunities, bursary advice and help and information about the World of Work. This can be done by accumulating information resources such as pamphlets, posters, brochures and various digital resources into a library or a dedicated career corner at the centre that is open to learners and all

public users. Almost all professional umbrella organisations have free resources that promote career options in their industries. Digital resources include providing online access to websites such as www.careerplanet.co.za or the various other free web based services.

Site Visit Programmes

Science centres are expected to promote awareness and interest in careers in industry but most centres have limited information and understanding of the day to day workings of industry. Many companies are open to planned visits by groups of teachers and learners. As science centres are able to link schools to industry, they can arrange and offer these visits and, in most cases, get host companies to provide resources, personnel and funding for such trips.

Career Awareness Workshops

The activities include activities and events that provide advice, information and guidance about post-school planning and opportunities. It includes:

- Individual counselling sessions;
- Group counselling workshops;
- Parent & child workshops at schools or at the science centre.

Industry Focus Exhibitions and Events

These are events that spotlight specific sectors of the economy. They are best planned and implemented in partnership with organisations or companies from the featured sector. Examples include:

- Health and Medical
- Finance and Banking
- Agriculture & Forestry
- Engineering
- Information Technology
- Manufacturing
- Transport
- Energy
- Mining, Metallurgy & Extractive Industries

The events include talks by role models, simulation activities, company exhibitions and stands for bursary information, workshops, etc.

Girls Learner Programmes

Promoting the entry of girls into science and technology remains an important goal. Science centres can implement programmes that expose girl learners to female SET role models or offer visits to SET sites to meet and speak to women scientists and engineers.

Subject Choice Support Programmes

Science centres should offer annual programmes for Grade 9 learners to assist them to plan their subject choices for Grade 10 that are in line with possible career interests. This also ensures that we counter much of the misinformation that learners often are given about entry requirements for post-secondary studies.

Life & Study Skills Development programmes

These include activities, programmes and events that focus on developing learners' study skills for school and higher education and life skills that are needed for success in life and the World of Work. These include skills such as teamwork, leadership, problem solving and other skills.

Schools Outreach Programmes

Science centres serve many communities and schools that have difficulty in accessing the centre. Providing services to these groups through an outreach programme that visits schools and community centres is an important method of expanding impact.

Life Orientation Teacher Training & Support

Career education is a component of the life orientation curriculum and schools have some resources for this. These are often not properly mediated and do not equip teachers to properly prepare learners for post-school. Science centres have the opportunity to support and upskill teachers. Working with HEI's, industry and each other, science centres can greatly enhance the impact that career education has at school.

'Meet-a-Scientist' programmes

(which can also fit into the category of 'Individual counselling sessions').

Young visitors to SCs benefit enormously from speaking directly to 'real scientists', learning about what motivated them to become a scientist, what subjects they took at school and university, their

extra-mural pursuits (which are often more important than their formal studies), the importance of partnerships, and how their career track panned out. Most scientists are willing to do talks as long as the sessions are well organised and advertised in advance.

An important point to make in these discussion sessions is that your career hardly ever pans out as you originally planned it as it takes expected and unexpected turns along the way, some beneficial, others not. The decisions that you make at each of these 'bifurcations' are very important, and need to be informed.

There are many other programmes and events that can be added to this list. SAASTEC member science centres are encouraged to share their ideas and experiences in this area and to contribute to the ability of other centres to make a difference to the communities.

Contact the secretary to add your ideas to this list.