

# CONNECTED EDUCATION

EVERY LEADER. EVERY TEACHER. EVERY LEARNER

# BRIDGE



LINKING INNOVATORS IN EDUCATION



LEARNER  
SUPPORT

## BRIDGE National Maths & Science Community of Practice

### WHAT IS A CoP?

A community of practice (CoP) is a group of people with a common interest who come together to learn more about it.

BRIDGE is a leader in setting up, managing and running communities of practice in different educational fields.

## COMMUNITIES OF PRACTICE

### Inputs

- Need & purpose
- Common interest
- Multi stakeholders
- BRIDGE methodology
- Facilitator/champion
- Administrative support
- Venues & logistics
- Funding

### Activities

- Sharing information
- Sharing practices
- Sharing resources
- Identifying and solving problems
- Networking
- Forming partnerships & relationships
- Responding to policy developments
- Creating products & resources
- BRIDGE Knowledge Management

### Outputs

- Knowledge products
- Maps
- Resources, guidelines & tools
- Joint ventures
- Pilot projects
- Shared practice models

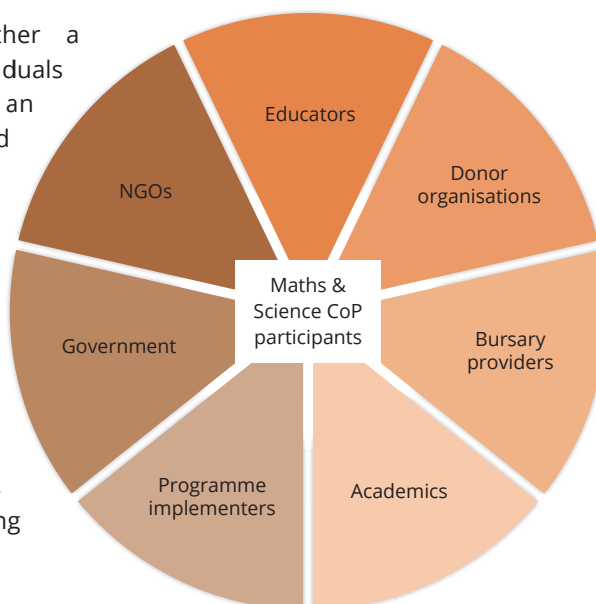
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We have found the sharing of ideas at BRIDGE CoP meetings to be very rich. Many of the ideas that we have incorporated in our work have come through the sharing that happens in the BRIDGE community.

**DR LYNN BOWIE,  
OLICO EDUCATION**

## PURPOSE OF THE NATIONAL MATHS & SCIENCE COMMUNITY OF PRACTICE

The CoP brings together a broad range of individuals and organisations with an interest in supporting, and improving the quality of, maths and science education. Meetings are structured around inputs by community members or invited experts and encourage hands-on participation, reflection and the sharing of information, experience and working practice.



## THE IMPORTANCE OF MATHEMATICS AND SCIENCE EDUCATION

Maths and science are regarded as gateway subjects, opening the way to opportunities with the potential to transform the lives of learners who succeed in them. They are also central to economic development. Improving the quality of teaching and learning in these subjects will make it possible for greater numbers of students to study for occupations requiring these skills, and ultimately to contribute to our country's economic sustainability and growth.

## WHAT HAPPENS IN A MATHS & SCIENCE CoP MEETING?

The CoP holds four meetings a year. These events might include:

- Expert input on aspects of maths and science education
- Showcasing organisations or innovations
- Panel discussions
- Group activities on specific topics
- Hands-on exploration of resources or practices
- Discussion of links between policy and on-the-ground realities and practices
- Updates and information-sharing on key events or issues
- Formation of specific interest groups or task teams to pursue a line of action

## EXAMPLES OF THEMES, TOPICS AND TOOLS EXPLORED BY THE MATHS & SCIENCE CoP

**Using ICT and OERs to support meaningful teaching and learning in maths and science:** e.g. interactive programs and platforms to create and present lessons; develop core fluencies and understanding of key concepts; encourage creative thinking; provide individualised practice with targeted feedback, leading to mastery

**Overcoming the 'maths barrier':** making maths and science learning more accessible for younger learners; encouraging the uptake of maths and science to advance career development and strengthen the economy; alternative routes to accessing learning and improving the employability of young people

**Supporting maths and science teaching:** using ICT and OERs effectively; sharing innovative classroom practices; using assessment to enhance teaching and learning; introducing the DBE's Mathematics Teaching and Learning Framework, a practical guide to teaching for understanding

**Current thinking in maths and science education by educators and government:** e.g. reviewing the curriculum, reducing curriculum overload; shifting towards learning-centred methodologies; addressing the role of language and literacy in maths and science education

This Community of Practice – where people come together on a structured basis, with a certain agenda and a set of rules – is such a great idea. This could be something to take more effectively into the system

DR AHMED BAWA, HRDC

## HISTORY OF THE NATIONAL MATHS & SCIENCE CoP

This community of practice grew from research and convening work undertaken by BRIDGE during 2010. This led to discussion and exchange within this community, which led in turn to new engagements and partnerships among participants, and the rise of several other BRIDGE focus groups and communities.

## KNOWLEDGE MANAGEMENT AND THE MATHS & SCIENCE CoP

Knowledge management for the Maths & Science CoP means spreading the information, practices, tools and resources that are shared in CoP meetings. Presentations and discussions are captured in Meeting Highlights, and other types of 'knowledge products' that come out of the work of the CoP are disseminated to the sector in general through the BRIDGE website.



All knowledge products relating to CoP activities and achievements are on the ECD tab of the BRIDGE website [www.bridge.org.za](http://www.bridge.org.za). Please contact [info@bridge.org.za](mailto:info@bridge.org.za) if you want to take part in this CoP.