

# FAMILY MATHS EVENTS

The SANC project will support your school in setting up and running an event. This booklet contains everything you need to know in order to organise the event including some background about the value of these types of events.

## What are Family Events all about?

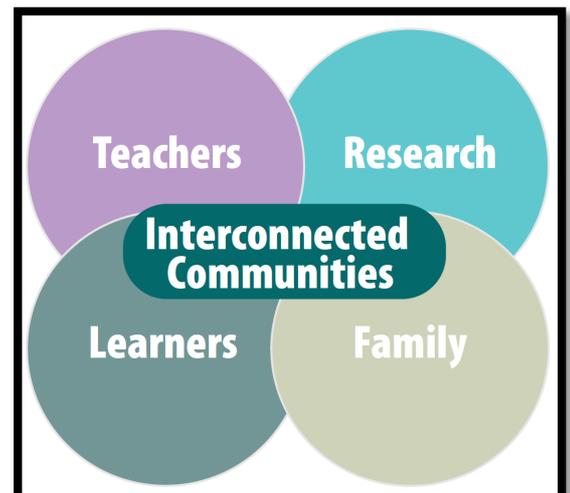
As early as 1974 Bronfenbrenner, wrote about the importance of family involvement in child development, particularly with regard to the success of intervention programmes. The evidence indicates that the family is the most effective and economical system for fostering and sustaining the development of the child. The evidence indicates further that the involvement of the child's family as an active participant is critical to the success of any intervention program. Without such family involvement, any effects of intervention, at least in the cognitive sphere, appear to erode fairly rapidly once the program ends (Bronfenbrenner, 1974).

The Harvard Family Research Project (2007) points out that that family involvement can be strengthened with positive results for children and their school success. Epstein's (2001) book indicates that "well-designed program and practices of school, family, and community partnerships benefit students, families and schools" (p.18). This is supported by projects done in other countries such as Australia and South Africa where they work specifically with mathematics. parental and community support benefits children's learning, including their numeracy development.

Fleisch (2008), in his book Primary Education in Crisis explores standard influencing factors in the socialisation and enculturation of learners in South African homes and cautions that we should not only approach the problem of low Socio Economic Status and education achievement from a point of social and cultural capital but rather we must build 'a robust understanding' of the relationship. He notes:

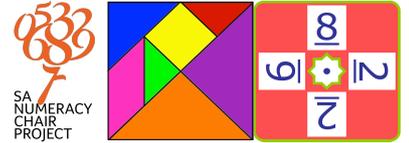
*"poor families rather than being just a source of social and cultural deficit, are important supporters of educational success ... poor South Africans share with the middle class an unqualified faith in the power of education. For poor families education is the way out of poverty, and as such many spend a large portion of their disposable income on school fees, uniforms and transport to get and keep their children in school" (p. 77).*

In the SANC project we work with a number of intersecting communities (teachers, learners, families and researchers) to overcome our numeracy crisis.



SANC Project interconnected communities

The work of the SA Numeracy Chair, Rhodes University is supported by the FirstRand Foundation (with the RMB), Anglo American Chairman's fund, the Department of Science and Technology and the National Research Foundation. Additional funding for after school maths clubs and family maths events is provided by the Vestas Empowerment Trust.



## How do the events work?

### Before the event

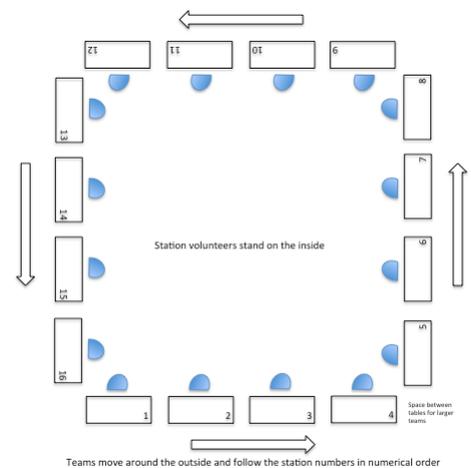
- Invite the siblings and parents of the children in the club (and grade if required) to participate as a team
  - Aim for maximum 100 people (including children)
  - Emphasise prompt start time
  - Saturday mornings work well, but you know your parents and learners best, so choose a time when you think they will come
- Allocate about 2 to 2.5 hours for the event
- Organise food
- Organise prizes
- Organise additional volunteers to help man the stations e.g. teachers, older learners, President's Award candidates and so on

### In the venue

- Set up a table for each activity, giving each table a unique number
- Aiming for no more than 20 stations. There will be fewer if fewer people arrive.
- Each table or "station" is manned by an older learner / adult who has access to the solution for the activity

### As each family group arrives

- They are given a scorecard, clipboard and pencil
- Allocate themselves a Team Name
- Sign the register
- Get allocated to a station, but do not start until all teams have arrived



### Once everyone has arrived

- Briefing session about how the event works
- Teams go to their stations
- Whistle blows for the event to start

### The actual event

- The station volunteer explains the activity to the team
- Teams work at their allocated station for between 3 to 4 minutes
- One person acts as activity timer. This person blows a whistle after the allotted time
- Each team is given a score for the activity
- They move onto the next station in numerical order
- Repeat these steps until a team has done all stations

### After the teams have completed all the stations

- Scorecards are collected and scores added up for each team
- Prizes are allocated
- Family talk, prize giving and photographs
- Serve food!

## What resources are needed for the event?

SANC project provides	School input
All activities and related resources for each station	Spacious venue e.g. school hall
Pencils, scorecards and boards	Tables (about 20 to 25)
Prizes (vouchers, chocolates etc)	Chairs (about 20 to 25)
Staff to help man stations	Method of informing parents and learners e.g. invitation
Parent talk (if parents attend)	At least 5 staff members to help man the stations / serve food / take register. Preferably teachers from the club / grade children and other maths teachers
Activities for the families to take home (cards, dice etc.)	A place to serve some food
Register	Press or other photographer
Food	

## Can we run our own events?

YES, of course!

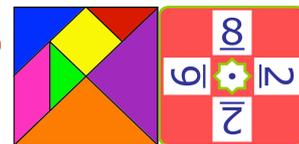
If you wish to do so for other grades:

- Follow the guidelines in this booklet
- Activities are available on the SANC project website:
- <http://www.ru.ac.za/sanc/numeracybuzz/familymathsevents/>. From this page you can access the following:
  - [Family Maths Events Archive](#) of all the events that we have organised and supported since 2012
  - [Family Maths Events resources](#) including activities, scorecards, registers and more!

## Notes:



# What types of activities can we expect to do?



## For younger learners (up to grade 3)

Station activity		
Playing cards: make 10	Sequencing puzzles 3&4 (donkey and boy)	Hidden shape puzzles x 3
Cube / block building	Find shape values (easier: nos to 20)	4-pin bowling
Sequencing puzzles 1&2 (Crab and South Africa)	Grid pattern searches x 2	Addition squares x 2
Build 3D shapes (cube/house and roof using GeoGenius)	How many dots?	Faces and dog puzzles
Domino windows	Build the 100 squares (up to 100)	Build the number

## For older learners (Grade 4 and over)

Station activity		
Make a Octahedron (using GeoGenius)	How many rectangles?	A bit fishy
Cube / block building	Find shape values (harder)	Number grid puzzles
Find the missing numbers	What colour is each shape?	Matchstick puzzles
Build the 100 squares (3 digit numbers)	Puzzles (Faces and dogs)	Addition and math maze
How many cookies?	Calculator puzzles	Maths cross-puzzle
Make 24	Domino windows	Tangram (build the cat and dog)
Go figure	Tangram (build the square)	
Harder activities		
Arithmagons	Field work	Number cells
Dotty shapes	Which one is different?	

## How does the scoring work?

The scorecard caters for up to 20 activity stations

The station volunteer will score the team as follows:

- Score 1 if no progress made on the task
- Score 2 if team made good progress but did not complete the task
- Score 3 if team completed the task and worked on the extension task

Team Name		Family Name		
No. of adults	No. of children	Venue / room		
Task not complete = 1 point Good progress but not complete = 2 points Task completed = 3 points				
Station 1	Station 2	Station 3	Station 4	Station 5
Station 6	Station 7	Station 8	Station 9	Station 10
Station 11	Station 12	Station 13	Station 14	Station 15
Station 16	Station 17	Station 18	Station 19	Station 20
Station 21	Station 22	Station 23	Station 24	Station 25
Station 26	Station 27	Station 28	Station 29	Station 30
No. stations completed	<input type="text"/>	Score	<input type="text"/>	