

"Pushing for Progression" in number sense and fluency Maths Club Development Programme $\underline{\text{Resource Costings}}$

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Purpose and introduction to costings

The purpose of this document is to provide 3rd parties with an *indicative cost* for running the 15-week Pushing for Progression Maths Club teacher development programme as well as to detail the *production requirements* for each resource. This will enable other parties to source funding for running such clubs in other locations. After running the development programme across 4 sites in 2016, it has been possible to work out the average costs for running the programme. The costs are based in 2016 prices and a mix of laminated and printed resources.

The activities and associated materials have been carefully selected from our experiences with clubs over the last 5 years. Activities are provided from Grade 1, Grade 2 & 3 and the IP grades. This means that if a teacher running a club encounters a learner who needs to be extended or remediated in your clubs, they have access to other activities that can be useful. The Teacher's Handbook contains: all activities, master copies of activities as well as detailed session plans using a Session Planning Sheet.

With regard to Pushing for Progression, the materials provide details on the different types of counting strategies used by learners in addition / subtraction and multiplication / division. The progression spectra and other detail can be found in the Teacher Handbooks and on our website http://www.ru.ac.za/sanc/mathsclubs/pushingforprogressionprogramme/.

The costs in this document are based on 2016 prices and these assumptions:

- 1. One club with one facilitator
- 2. Maximum 12 learners in the club
- 3. 15-week programme, with 3 workshops where resources are handed out

Suggested method for working with the activities in the clubs

Some of the activities are laminated, whilst others are printed and use the suggested method below for saving on copying costs. If you wish to laminate all the activities, then you can use the costs against the laminated resources to work this out.

To save copying and paper, it is suggested that you print / copy a master set of printed resources for the club, which are kept in a folder:

- 1. 12 copies if the activity is for individual work
- 2. 6 copies if the activity is for pair work
- 3. Before the session, put each page into A4 plastic sleeves (or laminate for extra durability)
- 4. Learners use dry-wipe markers to work on the sleeve and then use small cloths (for example dusters cut into smaller pieces) to clean the sleeves
- 5. After the session, place the masters back in your file

Additional resources

In addition to printed and laminated resources, each club requires a basic set of other resources, which includes:

- Playing cards
- Dice
- Whiteboard markers
- Cleaning cloths

These are detailed in Session One costs.

Homework Books

We recommend that teachers also provide learners with one or all of our homework books (freely available from http://www.ru.ac.za/sanc/resources/numeracyproducts/) during the course of the programme. These vary in number of pages, so you could budget on between R7 and R10 per book for printing purposes. We print them as A4 booklets (double-sided printing).

Overall costs

15-week programme for one club of 12 learners

		FP		IΡ	
Session One costs	R	587	R		587
Session Two costs	R	281	R		238
Session Three costs	R	401	R		312

Total programme cost	R	1,269 R	1,137

The 15-week programme with 12 learners in a club would cost about R1,269 for the Foundation Phase and R1,137 for the Intermediate Phase. The detailed costs for each session indicate the following:

- Laminated and printed activities
- Number of pages in resource
- Printing requirements e.g. double or single-sided, black and white or colour etc.
- If the resource is for pair (PAIR) or individual (IND) work or for the teacher (TEACHER / SET)
- An indicative cost per item
- The quantity required for the club
- Total cost for a club of 12 learners

Session One costs

Session One - Foundation and Intermediate Phases	No. of pages	Requirements	IND / PAIR	Cost per item	Qty per club	
LAMINATED	pagos				oras	'-'
Laminated BEETLE scorecards & Make 12 grids	2	Double-sided	PAIR	2.45	6	14.70
PRINTED						
Session One handbook	23	A4 booklet Double-sided	TEACHER	21.80	1	21.80
SANC Dice and card booklet	27	A4 booklet, double-sided	TEACHER	10.00	1	10.00
4 operations assessments	4	Double-sided	IND	3.10	12	37.20
4 operations marking sheets	2	Double-sided	TEACHER	1.55	2	3.10
PHYSICAL RESOURCES						
Teacher card sets		NA	SET	10.80	6	64.80
Teacher dice sets (dot dice)		NA	SET	1.80	25	45.00
Teacher dice sets (1 to 6 dice)		NA	SET	3.80	6	22.80
6 whiteboard markers and 6 small cleaning cloths in ziploc bag		NA	SET	90.00	1	90.00
A4 plastic sheets		NA	SET	2.47	24	59.28
TOTAL				ĺ		

Lear	ner Packs				
PHYSICAL RESOURCES		Cost per item	Qty per club	Club 12l	
1 set playing cards per learner	PER LEAR	10.80	12	129.60	
2 White dot dice per learner	PER LEAR	1.80	24	43.20	
1 Numeral (1-6) dice per learner	PER LEAR	3.80	12	45.60	
TOTAL					R

The resources required for Session One include teacher and learner packs (cards, dice, markers and A4 sleeves), assessments, assessment marking sheets and the BEETLE and Make 12 game boards. Both phases would cost about R587.

Session Two costs

Session Two - Foundation Phase	No.	Requirements		Cost per	_	Club	
	pages	·	PAIR	item	per club	121	
LAMINATED							
Roll & Fill whole-part	2	2-sided	IND	6.70	12	80.4	
Cross out Singles & Alphabet Numbers	2	printing	PAIR	6.40	6	38.4	
Pyramid sums blanks	2	Laminate	IND	6.70	12	80.4	
Build a snake cards	1	each A4 page	PAIR	6.40	6	38.4	
PRINTED							
FP Joining Numbers	1		PAIR	0.70	6.00	4.20	
FP Puzzles	1	Single-sided	PAIR	0.70	1.00	0.70	
Number searches	3	printing	IND	0.70	12.00	8.40	
FP Find subtraction sums	1]	IND	0.70	12.00	8.40	
		Blue cover	TEACHE				
Session two handbook	40	2-sided		21.80	1.00	21.80	
		printing	R				
TOTAL							R 281
		•					
Session Two - Intermediate Phase	No. pages	Requirements	IND / PAIR	Cost per item	Copies per club	Club 12l	
LAMINATED	pages		T All C	I.GIII	per clab		
Roll & Fill whole-part	2	2-sided	IND	6.70	12	80.4	
Cross out Singles & Alphabet Numbers	2	printing	PAIR	6.40	6	38.4	
Pyramid sums blanks	2	Laminate	IND	6.70	12	80.4	
PRINTED							
IP Joining Numbers	1	Single-sided	PAIR	0.70	6	4.2	
IP Patterns	1	_	PAIR	0.70	6	4.2	
IP Find subtraction sums	1	printing	IND	0.70	12	8.4	
		Blue cover	TEACHE				
Session two handbook	40	2-sided		21.80	1	21.8	
		printing	R				
TOTAL							R 238

Session Two focuses on addition and subtraction activities, differentiated for the Foundation Phase and Intermediate Phases. Foundation Phase costs about R281, whilst Intermediate Phase costs about R238.

Note that only some of the activities are laminated. Costs will increase if you elect to laminate all activities. If you wish to provide homework books for the learners, there will be additional cost of between R7 and R10 per book.

Session Three costs

Session Three - Foundation Phase	No.	Requirements	IND / PAIR			Club	
LAMINATED	pages	·	activity	item	per club	121	
	1	Cinale sided	PAIR	6.40	6	38.40	
FP & IP How close to 100 grid	2	Single-sided Double-sided	IND	6.70	12	80.40	
FP Arrays and facts	1		PAIR	6.40	6	38.40	
FP Bee arrays	2	Single-sided Double-sided		6.40	12	80.40	
FP Skip counting mazes		Double-sided	IND	6.70	12	80.40	
PRINTED	4	Olympia aldad	IND	0.70	40	0.40	
FP An Apple a Day	1	Single-sided	IND	0.70	12	8.40	
FP I have who has doubling and halving cards	4	Single-sided	CLUB	14.40	1	14.40	
(2 sets)	_						
FP Find Arrays	2	Double-sided	IND	6.50	12	78.00	
		COLOUR					
		Blue cover	PER				
Session three handbook	56	2-sided printing	TEACHER	21.80	1	21.80	
		Staple and hole punch					
4 operations assessments	4	Double-sided	IND	3.10	12	37.20	
4 operations marking sheets	1	Double-sided	PER	1.55	2	3.10	
4 operations marking sneets	'		TEACHER	1.55		3.10	
TOTAL							F
Session Three - Intermediate Phase	No.	Requirements	IND / PAIR			Club	
	No. pages	Requirements	IND / PAIR activity		Copies per club	Club 12l	
		Requirements					
LAMINATED FP & IP How close to 100 grid	pages	Single-sided		item 6.40	per club	38.40	
LAMINATED FP & IP How close to 100 grid	pages		activity	item	per club	121	
LAMINATED FP & IP How close to 100 grid IP Arrays and facts	pages	Single-sided	activity PAIR	item 6.40	per club	38.40	
LAMINATED FP & IP How close to 100 grid IP Arrays and facts IP Multiplication Board Game & dice	pages 1 2	Single-sided Double-sided	PAIR IND	6.40 6.70	per club 6 12	38.40 80.40	
LAMINATED FP & IP How close to 100 grid IP Arrays and facts IP Multiplication Board Game & dice PRINTED	pages 1 2	Single-sided Double-sided	PAIR IND	6.40 6.70	per club 6 12	38.40 80.40	
FP & IP How close to 100 grid IP Arrays and facts IP Multiplication Board Game & dice PRINTED IP 2, 4 8 Scorecards	pages 1 2 1	Single-sided Double-sided Single-sided	PAIR IND PAIR	6.40 6.70 6.40	6 12 6	38.40 80.40 38.40	
FP & IP How close to 100 grid IP Arrays and facts IP Multiplication Board Game & dice PRINTED IP 2, 4 8 Scorecards IP add and multiply puzzles & multiplication squares	pages 1 2 1	Single-sided Double-sided Single-sided Single-sided	PAIR PAIR PAIR	6.40 6.70 6.40	6 12 6	38.40 80.40 38.40 4.20	
FP & IP How close to 100 grid IP Arrays and facts IP Multiplication Board Game & dice PRINTED IP 2, 4 8 Scorecards IP add and multiply puzzles & multiplication squares IP Grid methid 3 x 1 & 3 X 2 digit	pages 1 2 1 1 2 2 2 2	Single-sided Double-sided Single-sided Single-sided Double-sided	PAIR IND PAIR PAIR IND	6.40 6.70 6.40 0.70 1.55	6 12 6 12 6	38.40 80.40 38.40 4.20 18.60	
Session Three - Intermediate Phase LAMINATED FP & IP How close to 100 grid IP Arrays and facts IP Multiplication Board Game & dice PRINTED IP 2, 4 8 Scorecards IP add and multiply puzzles & multiplication squares IP Grid methid 3 x 1 & 3 X 2 digit IP Grid method 2 x 1 & 2 X 2 digit IP I have who has table 2, 4, 8 and 3, 6, 12 cards	pages 1 2 1 1 2 2 2 2 2	Single-sided Double-sided Single-sided Single-sided Double-sided Double-sided Double-sided	PAIR PAIR IND PAIR IND IND	6.40 6.70 6.40 0.70 1.55 1.55	6 12 6 12 12 12	38.40 80.40 38.40 4.20 18.60 18.60	
FP & IP How close to 100 grid IP Arrays and facts IP Multiplication Board Game & dice PRINTED IP 2, 4 8 Scorecards IP add and multiply puzzles & multiplication squares IP Grid methid 3 x 1 & 3 X 2 digit IP Grid method 2 x 1 & 2 X 2 digit IP I have who has table 2, 4, 8 and 3, 6, 12 cards	1 2 1 2 2 2 4	Single-sided Double-sided Single-sided Single-sided Double-sided Double-sided Double-sided Single-sided	PAIR IND PAIR IND IND IND	6.40 6.70 6.40 0.70 1.55 1.55	6 12 6 12 12 12 12 12	38.40 80.40 38.40 4.20 18.60 18.60 14.40	
FP & IP How close to 100 grid IP Arrays and facts IP Multiplication Board Game & dice PRINTED IP 2, 4 8 Scorecards IP add and multiply puzzles & multiplication squares IP Grid methid 3 x 1 & 3 X 2 digit IP Grid method 2 x 1 & 2 X 2 digit IP I have who has table 2, 4, 8 and 3, 6, 12 cards	pages 1 2 1 1 2 2 2 2 2	Single-sided Double-sided Single-sided Single-sided Double-sided Double-sided Double-sided Single-sided Double-sided Double-sided Double-sided	PAIR IND PAIR IND IND IND IND IND IND IND IND	6.40 6.70 6.40 0.70 1.55 1.55	6 12 6 12 12 12	38.40 80.40 38.40 4.20 18.60 18.60	
FP & IP How close to 100 grid IP Arrays and facts IP Multiplication Board Game & dice PRINTED IP 2, 4 8 Scorecards IP add and multiply puzzles & multiplication squares IP Grid methid 3 x 1 & 3 X 2 digit IP Grid method 2 x 1 & 2 X 2 digit IP I have who has table 2, 4, 8 and 3, 6, 12 cards IP Number pattern investigations and puzzle	pages 1 2 1 1 2 2 2 2 4 2	Single-sided Double-sided Single-sided Single-sided Double-sided Double-sided Double-sided Single-sided Single-sided Blue cover	PAIR PAIR PAIR IND PAIR IND IND IND CLUB IND PER	6.40 6.70 6.40 0.70 1.55 1.55 1.55	6 12 6 12 12 12 12 12	38.40 80.40 38.40 4.20 18.60 18.60 14.40 18.60	
FP & IP How close to 100 grid IP Arrays and facts IP Multiplication Board Game & dice PRINTED IP 2, 4 8 Scorecards IP add and multiply puzzles & multiplication squares IP Grid methid 3 x 1 & 3 X 2 digit IP Grid method 2 x 1 & 2 X 2 digit IP I have who has table 2, 4, 8 and 3, 6, 12 cards IP Number pattern investigations and puzzle	1 2 1 2 2 2 4	Single-sided Double-sided Single-sided Single-sided Double-sided Double-sided Double-sided Single-sided Blue-sided Blue cover 2-sided printing	PAIR IND PAIR IND IND IND IND IND IND IND IND	6.40 6.70 6.40 0.70 1.55 1.55	6 12 6 12 12 12 12 12 12 12 12 12 12 12 12 12	38.40 80.40 38.40 4.20 18.60 18.60 14.40	
FP & IP How close to 100 grid IP Arrays and facts IP Multiplication Board Game & dice PRINTED IP 2, 4 8 Scorecards IP add and multiply puzzles & multiplication squares IP Grid methid 3 x 1 & 3 X 2 digit IP Grid method 2 x 1 & 2 X 2 digit IP I have who has table 2, 4, 8 and 3, 6, 12 cards IP Number pattern investigations and puzzle Session three handbook	pages 1 2 1 1 2 2 2 2 4 2	Single-sided Double-sided Single-sided Single-sided Double-sided Double-sided Double-sided Double-sided Single-sided Blue cover 2-sided printing Staple and hole punch	PAIR IND PAIR IND IND IND CLUB IND PER TEACHER	6.40 6.70 6.40 0.70 1.55 1.55 1.55 21.80	6 12 6 12 12 12 12 12 12 11 12	38.40 80.40 38.40 4.20 18.60 18.60 14.40 18.60	
FP & IP How close to 100 grid IP Arrays and facts IP Multiplication Board Game & dice PRINTED IP 2, 4 8 Scorecards IP add and multiply puzzles & multiplication squares IP Grid methid 3 x 1 & 3 X 2 digit IP Grid method 2 x 1 & 2 X 2 digit IP I have who has table 2, 4, 8 and 3, 6, 12 cards IP Number pattern investigations and puzzle	pages 1 2 1 1 2 2 2 2 4 2	Single-sided Double-sided Single-sided Single-sided Double-sided Double-sided Double-sided Single-sided Double-sided Blue cover 2-sided printing Staple and hole punch	PAIR IND PAIR IND IND IND IND CLUB IND PER TEACHER	6.40 6.70 6.40 0.70 1.55 1.55 1.55	6 12 6 12 12 12 12 12 12 12 12 12 12 12 12 12	38.40 80.40 38.40 4.20 18.60 18.60 14.40 18.60	
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Session Three focuses on multiplication and division activities, differentiated for the Foundation Phase and Intermediate Phases. Foundation Phase costs about R401, whilst Intermediate Phase costs about R312.

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