

# Maths Fun with a Basic Calculator

The S25's applications!

# Agenda

- The drill function
- Counting in ...
- The research behind it
- Classmarks
- Patterns
- Percentage
- Square-root



# The Drill function

- Press Q
  - Choose between 25, 50 or 100 questions
- Press + - x ÷ button to choose the type of questions
  - + = 0 – 20 plus 0 – 20
  - - = 0 – 20 minus 0 – 20
  - x = 0 – 12 times 0 – 12
  - ÷ = opposite of times



# Drill Mode continued

- Press = to begin
- Answer each question and press = after each answer
- Correct – you will get a tick and new question.
- Incorrect, a cross and the same question appears.



# Counting in...

- Between 1 and 12
- See the question at the same time.



# The research behind it

- Automaticity
  - Three levels:
    - Acquisition
    - Development of Speed
    - Automaticity and Fluency
- Fluency

# Benefits of Automaticity and Fluency

- Research shows the link between the gain of automaticity in basic maths facts and being able to understand more complex tasks
- Less likely to have maths anxiety
- Less time and effort spent on maths tasks

Frequent timed drills are  
essential in developing  
automaticity

Woodward (2006)

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# Results – Semi-Rural

Experimental Group	Pretest	Post test
Sum	2463	2509
Average	91,222	92,92593
Std Deviation	7,885397	6,176419
Min Time	09:33	06:09
Med Time	16:05	11:37
Max Time	32:51	19:48

“because practice enhances speed of accurate responding, interventions that occasion higher rates of accurate responding are likely to cause greater increases in automaticity and / or fluency”.

Parkhurst et. al (2010)

# Classmarks

- E.g. Test out of 40, converted to percentages:
- Press  $100 \div 40 =$
- Then x and the first child's mark, e.g.  $x 33 =$
- Continue typing in the marks and equals after each.



# Patterns

- Press  $9 + 3 =$
- Keep pressing  $=$
- What happens?
- What sort of numbers are these?



- Press  $3 \times 3 =$
- $=$
  
- What happens?
- What is the pattern?



# Percentage

- Find 10% of 205
- Press 205
- $\times$
- 10



# Square-root

- Find the square-root of 9.
- Press 9
- Press






# Future Fund

- In conjunction with CASME
- Donating R2 million worth of calculators to disadvantaged students:
  - 10 000 calculators
- For every calculator donated, we will give another calculator.
- East Coast Radio – 21 September
  - Phone in and pledge
  - Westmead Secondary



# Don't forget the competition 😊

- Drill mode (Press  2 0)
- Choose 25 questions (press )
- Choose + - x ÷ (press )
- Fastest time this week wins a microwave 😊



Thank you 😊

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