



**Supporting teachers to improve
learner performance: The use
assessment in the classroom**

**DoE Early Reading Workshop
5 – 9 February 2007
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National Education Quality Initiative**

CRITICAL POINT

**Improve the quality of feedback to
enhance learning**

How?

**Supporting teachers obtain AND
use relevant evidence**

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Aim:

The primary aim of this project is to develop the capacity of the education department to establish an integrated assessment system for providing relevant and timeous information to all roleplayers for use in improving learning in South African schools.

Objectives:

- Review current assessment system to identify strengths and weaknesses in policies and practices and to determine areas that require alignment
- Design and implement the Grade 9 National Assessment study by modifying and piloting a systems model for monitoring the education system based on the “AQEE to improve learning” model (i.e. Access, Quality, Efficiency, Equity).
- Improve learning and teaching practices by developing and piloting a classroom assessment resource system for teachers.

Classroom level

- To determine the current understanding and use of classroom assessment by teachers across the different grade levels and school types, with specific focus on how assessment is used to provide relevant and timeous feedback to learners to improve performance.
- To identify appropriate practices for reporting assessment information to parents, and to determine how this information is used to improve learner performance.

Education Dept level

- Provide a detailed analysis of current assessment policies and practices and audit of available systems and structures within schools, districts, provinces and nationally
- To develop the capacity and skills of education department personnel at the different locations and levels dealing with the various aspects associated with building and maintaining assessment systems.

Outcomes

Set of policy options that are:

- **Piloted at scale to**
- **Determine impact on achievement (RET)**
- **Costed**

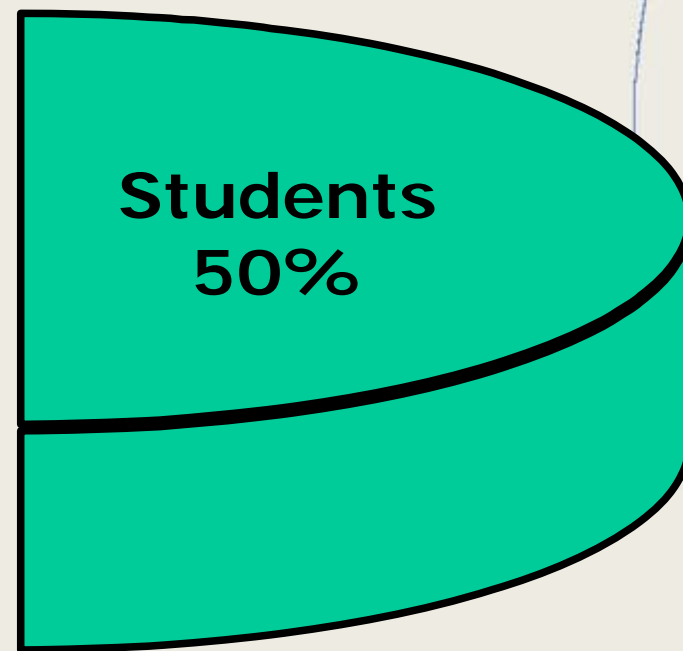
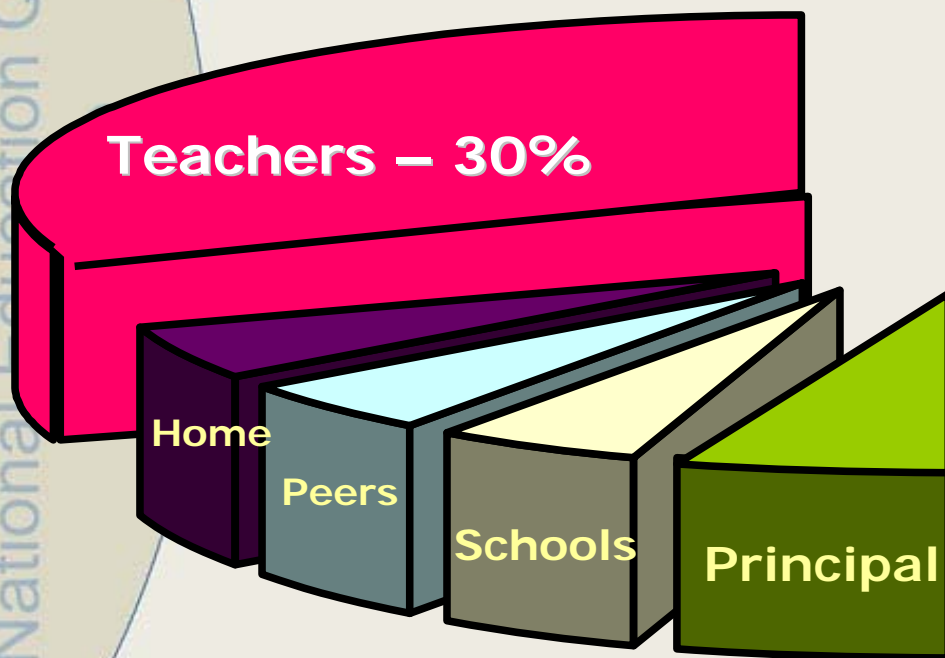
Example:

- **Option 1 – 9 % increase at R x.x million**
- **Option 2 - 18 % increase in scores for rural learners @ R y.y million + 11% for Urban learners @ R z.z million**

What do we know about the factors that improves learner performance in schools?

Variation in performance explained by:

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John Hattie - Results based on

- **over 337 meta-analyses,**
- **200,000 effect-sizes from**
- **180,000 studies,**
- **representing approx 50+ million students, and**
- **covering almost all methods of innovation.**

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Most significant effects

<u>Influence</u>	<u>Effect Size</u>	<u>Source of Influence</u>
Feedback	1.13	Teacher
Students' prior cognitive ability	1.04	Student
Instructional quality	1.00	Teacher
Direct instruction	.82	Teacher
Remediation/feedback	.65	Teacher
Students' disposition to learn	.61	Student
Class environment	.56	Teacher
Challenge of Goals	.52	Teacher
Peer tutoring	.50	Teacher
Mastery learning	.50	Teacher
Parent involvement	.46	Home
Homework	.43	Teacher
Teacher Style	.42	Teacher
Questioning	.41	Teacher

What do we need to do to support our teachers improve learning in schools?

Require:

**District tools & systems
(provincial and national)**

**Classroom tools &
systems**

- ✓ **Prioritize support required**
- ✓ **Identify schools/learners**
- ✓ **Enhance feedback provided**

**Extend Systemic
Evaluation (NA)**

**Classroom Assessment
Resources to Improve Learning**

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How do we support our teachers improve learner performance levels in our schools?

Classroom Assessment

- **Empower** teachers to:
 - Identify learner strengths & weakness
 - Determine appropriate interventions
 - Obtain ideas for “next steps”
 - Records trends in performance over time
- For use by TEACHER ONLY – i.e. lowstakes (not M&E by principal or district)

Classroom Assessment

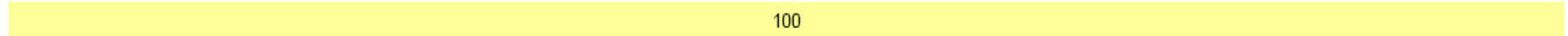
- **CRITICAL for providing relevant feedback**
- Available when you need it
- Specific to curriculum/learning outcomes
- Reduce work load

Classroom Performance Profile

Key Gaps % To Be Achieved % Achieved % Strengths %

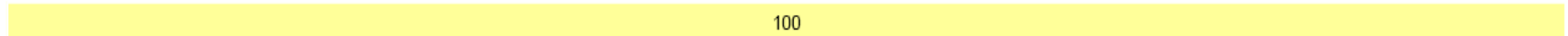
Number Knowledge

Order any set of three or more whole numbers (up to 99) (20)

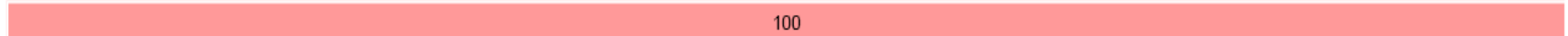


Number Operations

Demonstrate knowledge of conventions for order of operations (16, 17)



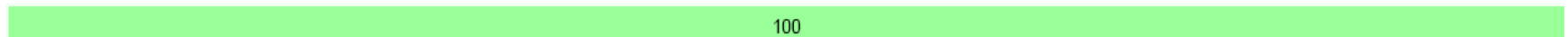
Demonstrate the ability to use the multiplication facts (15)



Give change for sums of money (24, 26, 27)



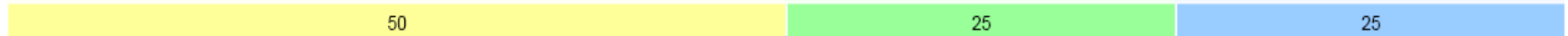
Perform calculations of addition/subtraction (7)



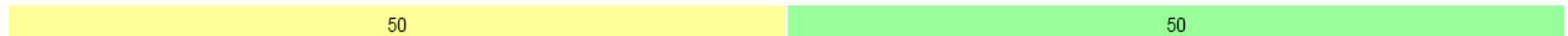
Use the mathematical symbols =, <, > (6, 21, 22, 23)



Write & solve whole number story problems using +, -, x, / (12, 19, 25, 29)

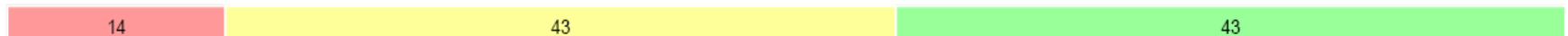


Write & solve whole number/decimal problems using +, -, x, / (11, 28)

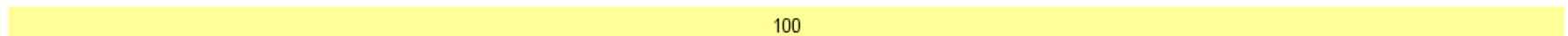


Algebra

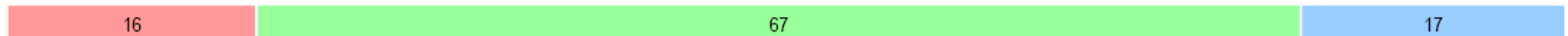
Continue sequential pattern & describe a rule (1, 2, 4, 13, 14, 32, 33)



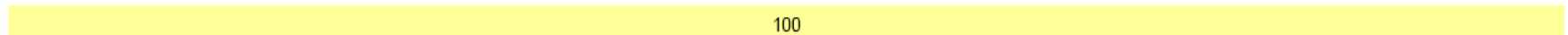
Find & express rules for any member of number sequence (30)



Solve problems of the type $(x+15=39)$ (3, 5, 8, 9, 10, 18)



Solve simple linear equations such as $(2x+4=16)$ (31)



Learner Performance Profile

Correct

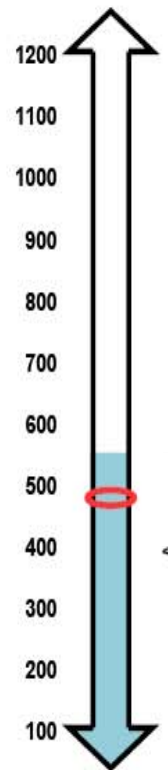
Strengths

- Solve problems of the type $(x+15=39)$: (10)
- Use the mathematical symbols $=, <, >$: (21, 23)
- Write & solve whole number story problems using $+, -, \times, \div$: (25)
- Give change for sums of money: (24)

Achieved

- Use the mathematical symbols $=, <, >$: (6, 22)
- Solve problems of the type $(x+15=39)$: (3, 5, 8, 9)
- Write & solve whole number story problems using $+, -, \times, \div$: (12)
- Write & solve whole number/decimal problems using $+, -, \times, \div$: (11)
- Continue sequential pattern & describe a rule: (1, 2, 4)
- Perform calculations of addition/subtraction: (7)

aMs Score



Incorrect

To Be Achieved

- Write & solve whole number story problems using $+, -, \times, \div$: (19, 29)
- Order any set of three or more whole numbers (up to 99): (20)
- Give change for sums of money: (26, 27)
- Continue sequential pattern & describe a rule: (14, 32, 33)
- Write & solve whole number/decimal problems using $+, -, \times, \div$: (28)
- Demonstrate knowledge of conventions for order of operations: (16, 17)
- Find & express rules for any member of number sequence: (30)
- Solve simple linear equations such as $(2x+4=16)$: (31)

Gaps

- Demonstrate the ability to use the multiplication facts: (15)
- Continue sequential pattern & describe a rule: (13)
- Solve problems of the type $(x+15=39)$: (18)

Individual learner trends

Goal Setting

Mathematics

Jane Jones

August 2005

Student Characteristics

Year Level

Gender

Location

Language at home

Plot

Time period

to

Percentile band

and

Trend Lines

Curriculum target

Schools like mine

Our school

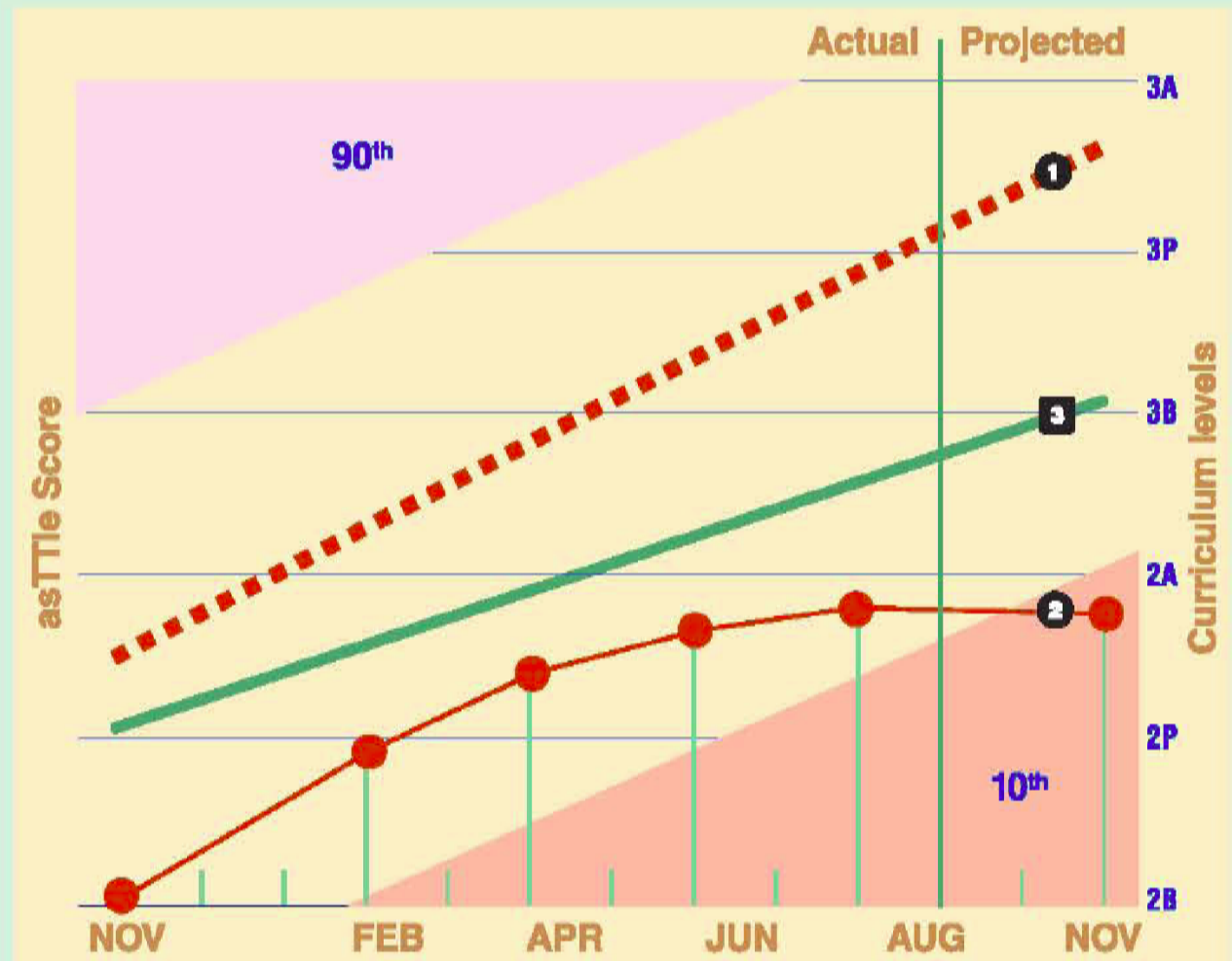
Student group

Goals

1 Curriculum target 60 points

2 Min. expected 15 points

3 Teacher defined 40 points



Student progress ● Curriculum target - - - Schools like mine — Our school —

Performance by Curriculum levels

Goal Summary Report

Mathematics

Jane Jones

August 2005

Student Characteristics

Year Level

Gender

Location

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Plot

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Percentile band

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Trend Lines

Curriculum target

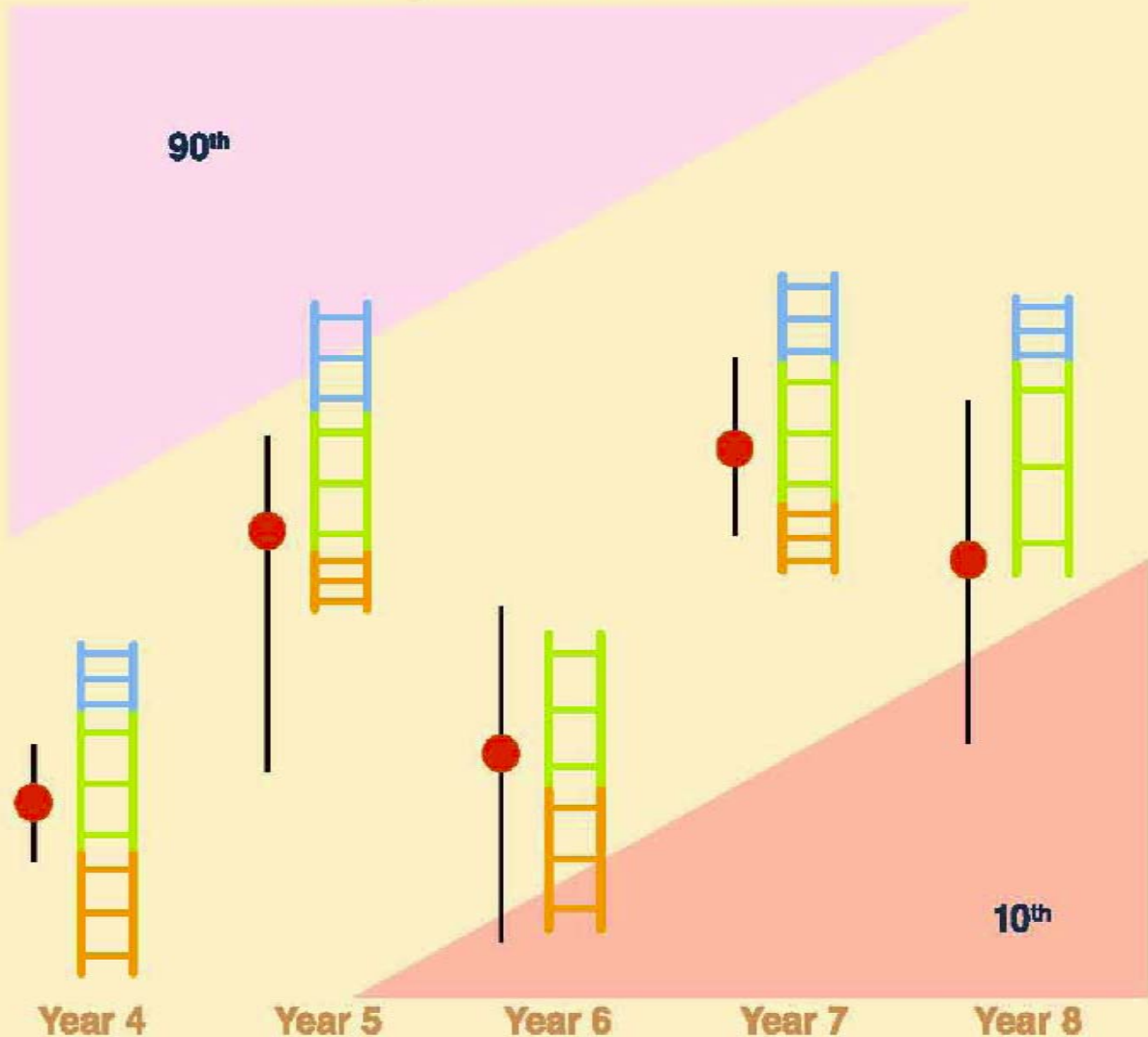
Teacher defined

Achieved above target 

Achieved target 

Achieved below target 

Summary of Performance vs Goals



Interaction Effects


Ethnicity: All
Year: 4, 5, 6, 7, 8
Gender: All

Language: All
Cluster: All Clusters

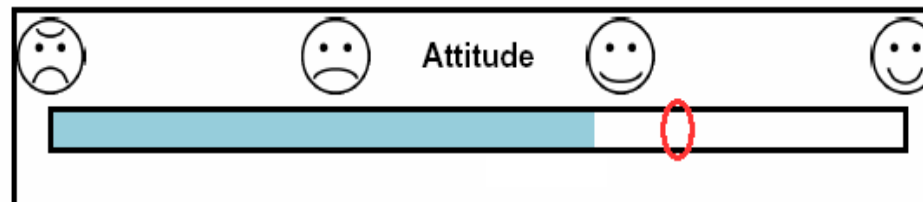
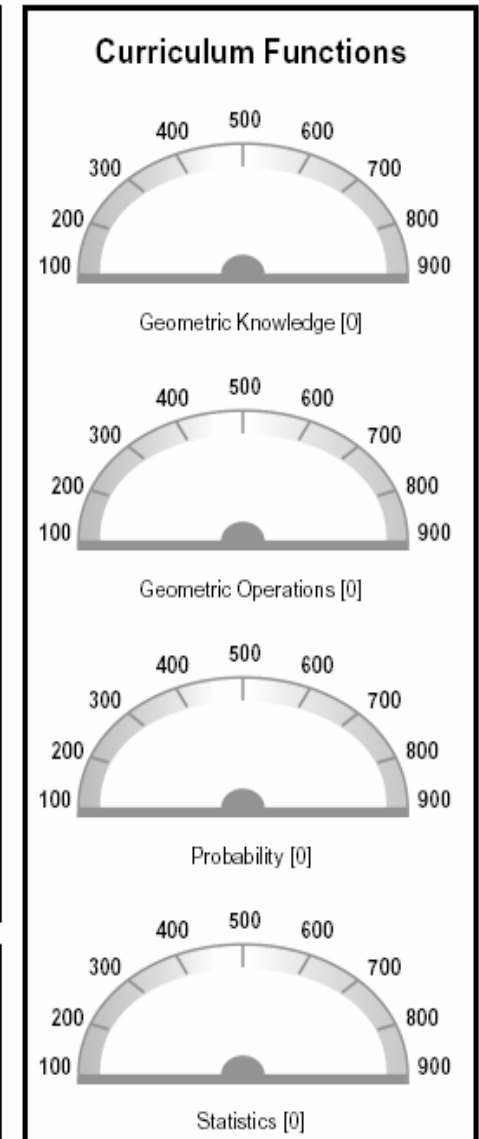
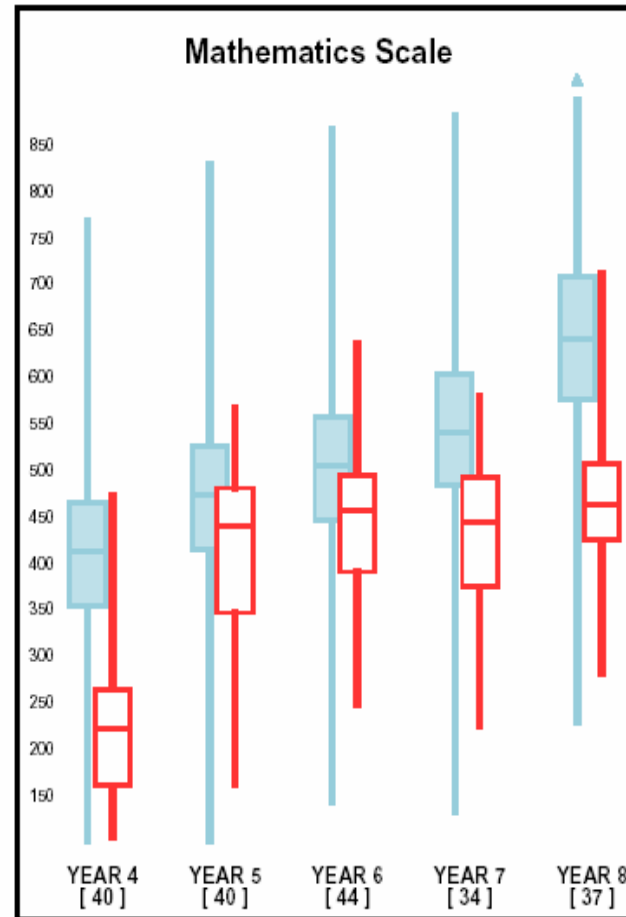
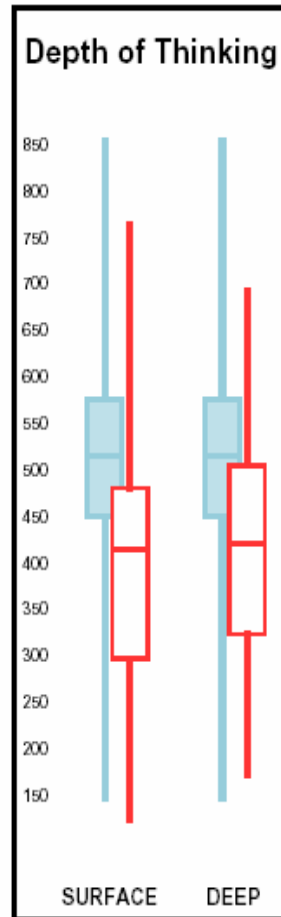
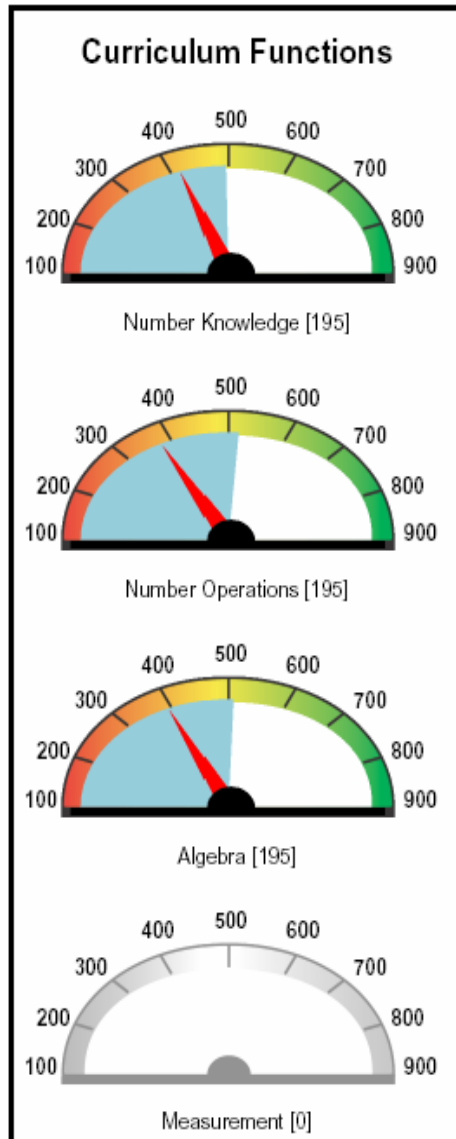
Location:

No. of Students: 195

SA Performance: 

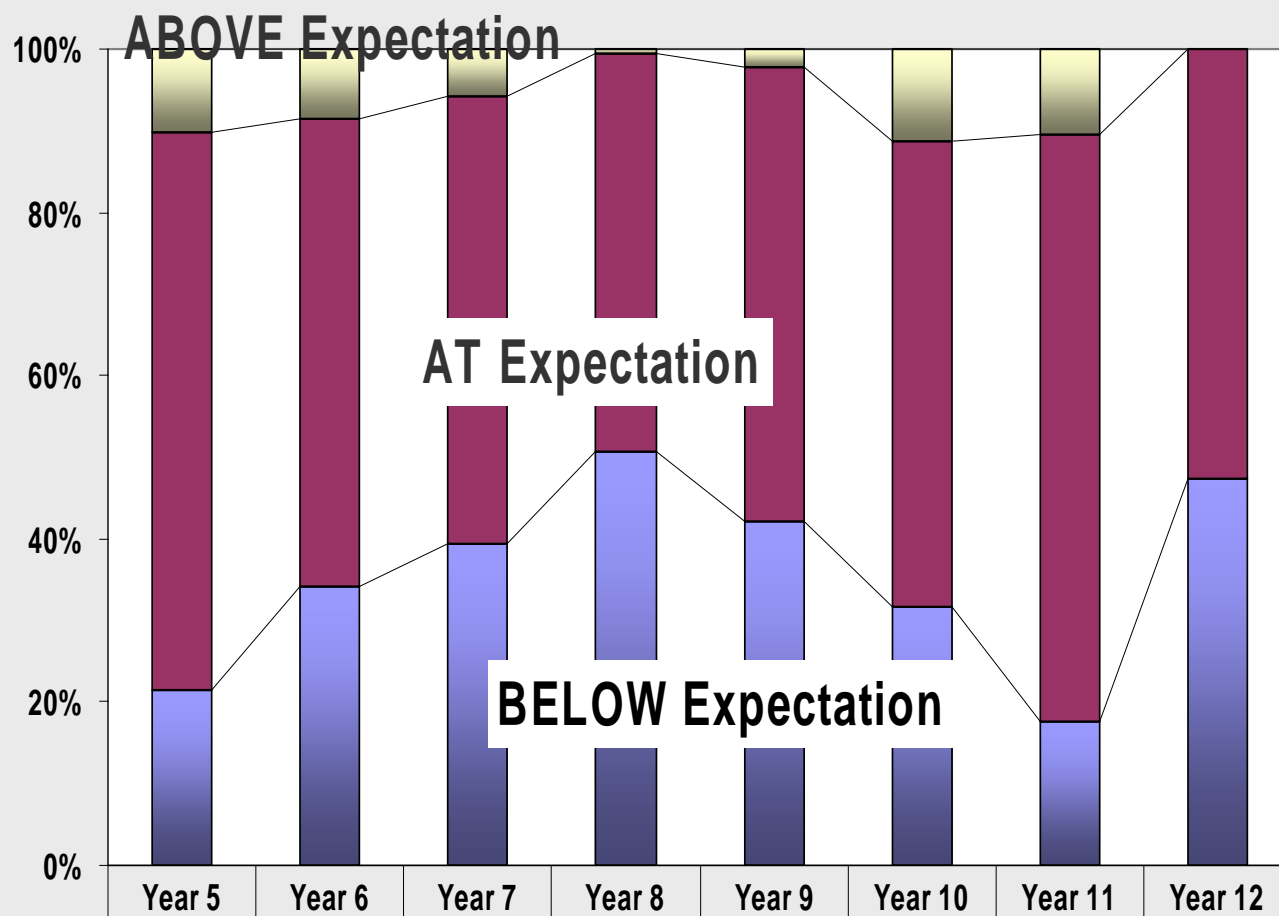
Your Group Performance: 

No. of Results: [n]



Reading

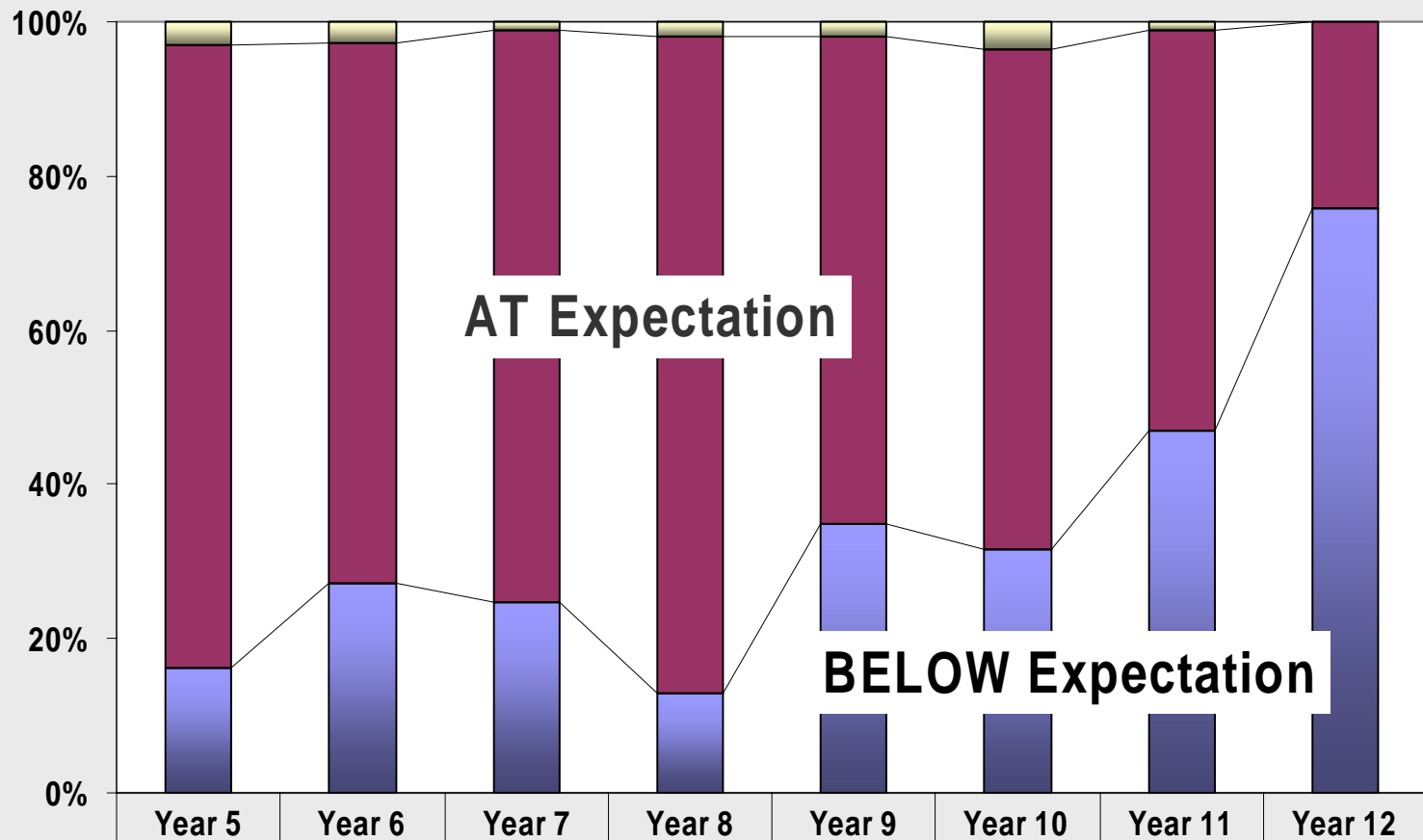
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	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
■ Above expectation	10	9	6	1	2	11	10	0
■ At expectation	68	57	55	49	53	57	72	53
■ Below expectation	22	34	39	51	40	32	18	47

■ Below expectation ■ At expectation ■ Above expectation

Maths

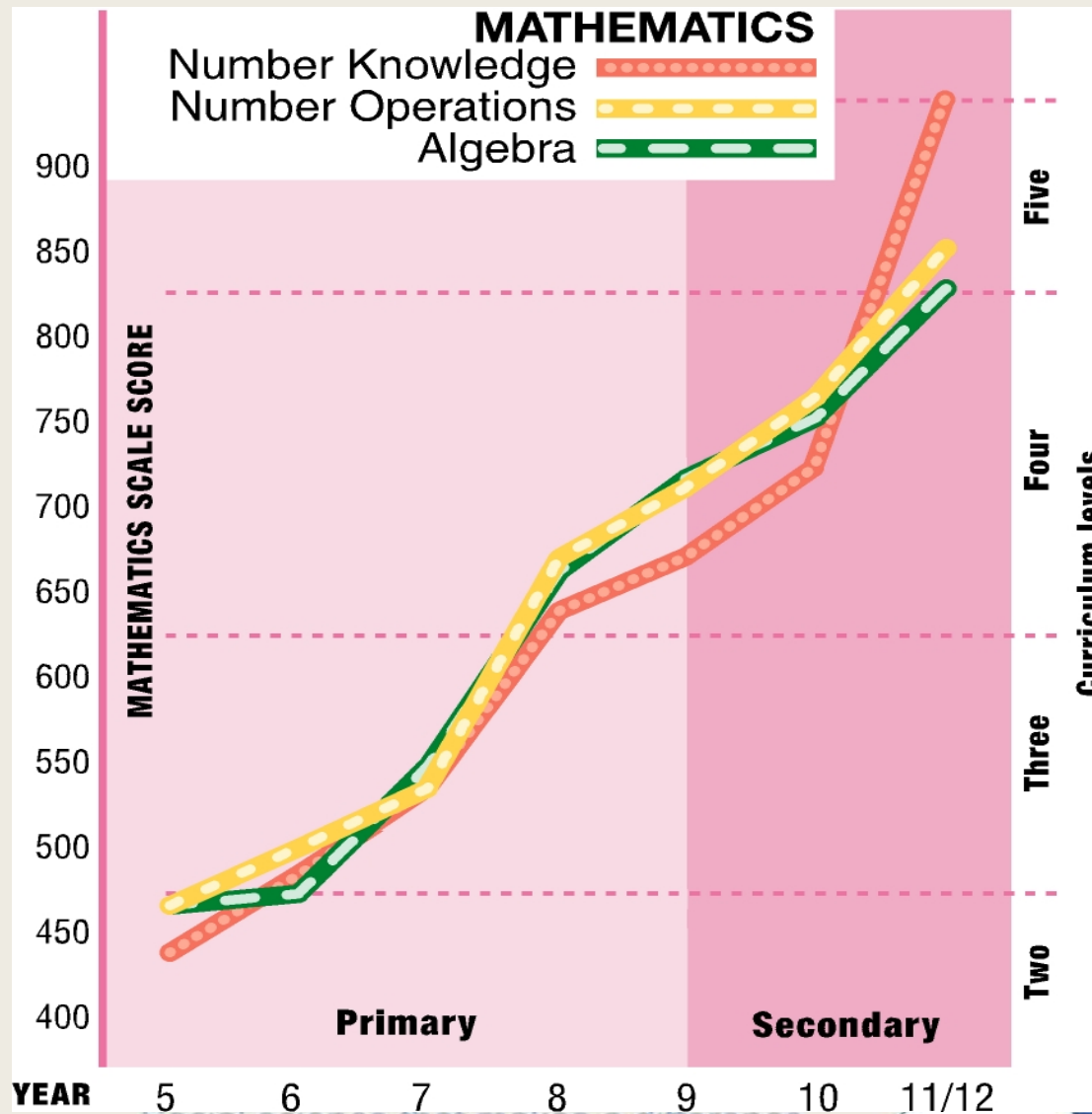


	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
■ Above expectation	3	3	1	2	2	4	1	0
■ At expectation	81	70	74	85	61	65	52	24
■ Below expectation	16	27	25	13	34	32	47	76

■ Below expectation ■ At expectation ■ Above expectation

By Content Area: Number

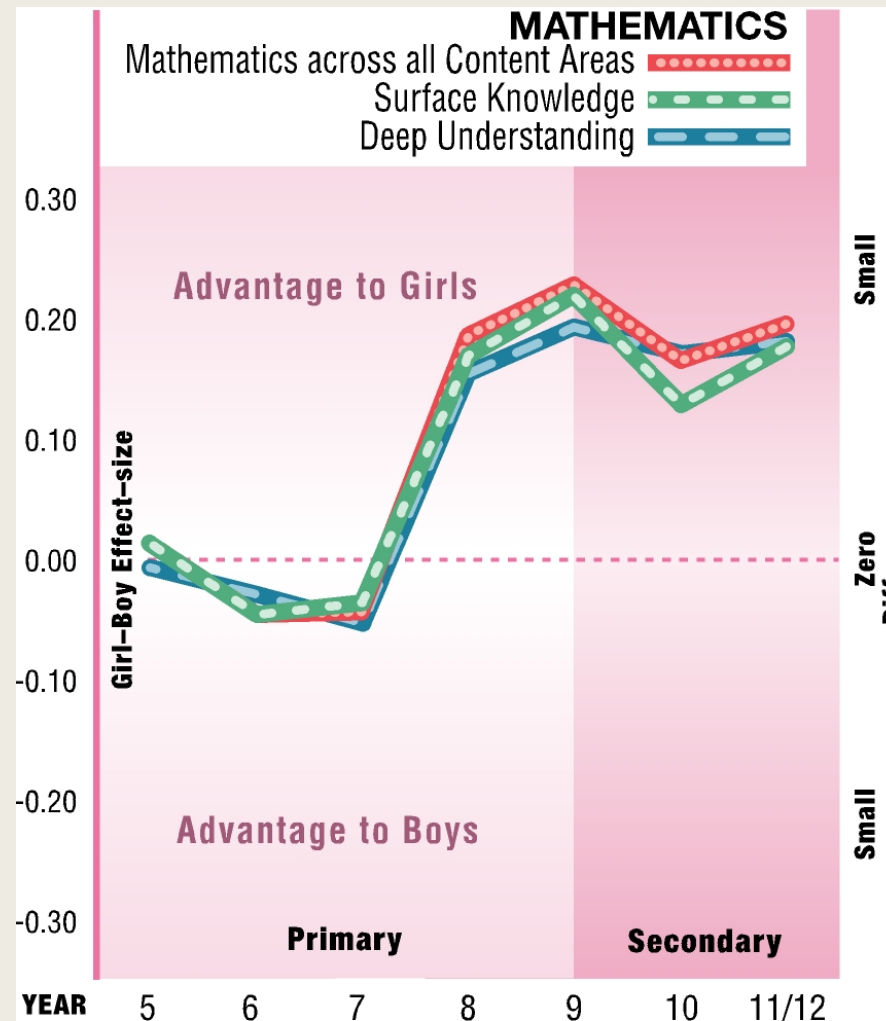
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Boys and girls ...

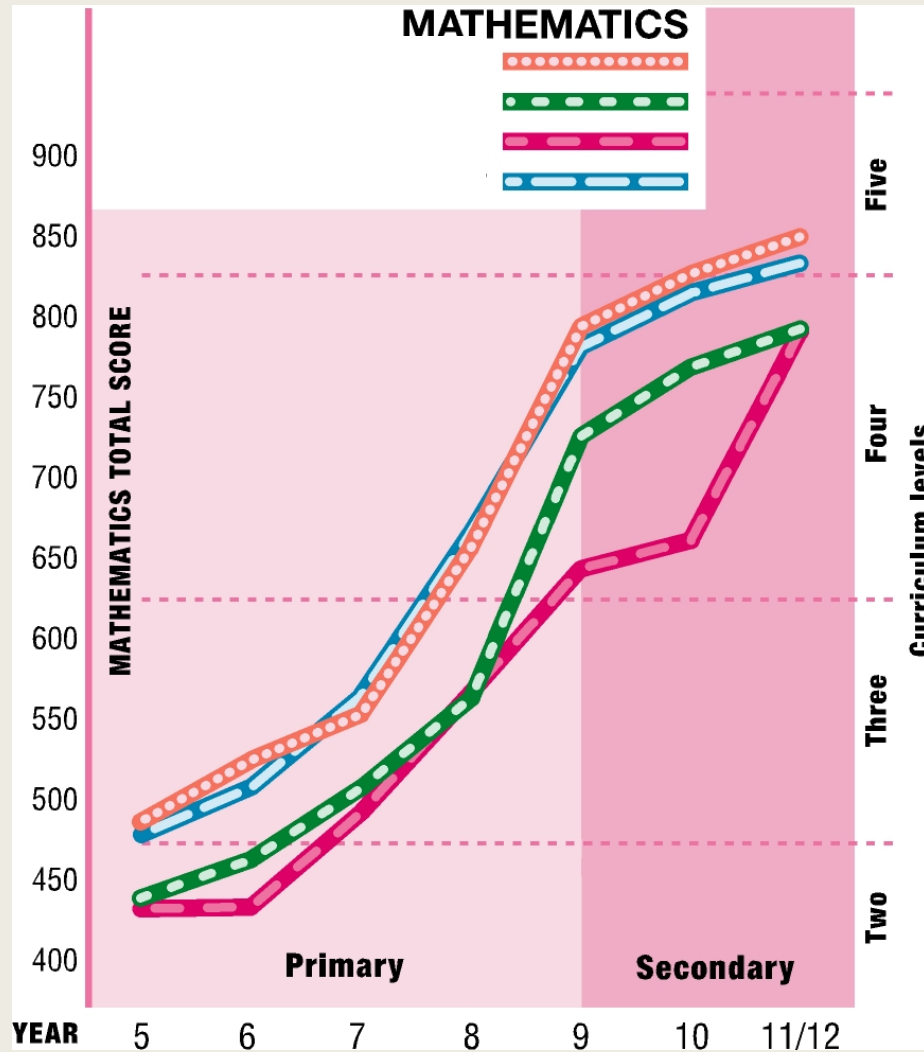
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School types

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How are items developed?

- **Items developed to represent all curriculum outcomes & assessment standards**
- **All items piloted at a national scale, e.g. part of systemic evaluation**
- **Appropriate items selected & packages into software**

Context of applications

- **To cater for learners with no/full access to computers & internet**
- **Address schools with a wide range of resources – schools with:**
 - **no computers,**
 - **One/few computers**
 - **School access to internet**
 - **Learner access to computers**
 - **Learner access to internet**

Relevant tools developed as:

- **CD version**
- **Internet version**
- **Paper & Pencil version**
 - **E.g. HSRC's Assessment Resource Banks – successfully applied in DDSP project**

Teacher Self Assessment Tasks

CONCLUDING POINT

**Improve the quality of feedback to
enhance learning**

How?

**Supporting teachers obtain
relevant evidence**

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Demo

..\..\..\Program
Files\asTTle\asTTleApp\asTTle
V3.exe

Thank you

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