



Province of the
EASTERN CAPE
EDUCATION

OFFICE OF THE HEAD: EDUCATION

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CIRCULAR 02 OF 2013

TO: DEPUTY DIRECTORS-GENERAL
CHIEF DIRECTORS
DIRECTORS: HEAD OFFICE AND DISTRICTS
CHIEF EDUCATION SPECIALISTS
DEPUTY CHIEF EDUCATION SPECIALISTS
SENIOR EDUCATION SPECIALISTS
PRINCIPALS OF SCHOOLS (GRADES 1 TO 9)
SCHOOL MANAGEMENT TEAMS
TEACHERS
SCHOOL GOVERNING BODIES
TEACHER UNIONS

FROM: ACTING HEAD OF DEPARTMENT: EDUCATION

SUBJECT: ANNUAL NATIONAL ASSESSMENT (ANA): 2013 IMPROVEMENT PLAN FOR LITERACY & MATHEMATICS

DATE: 16 JANUARY 2013

1. PURPOSE:

The purpose of this circular is to provide districts and schools with a Provincial ANA Framework for improvement that details the findings of the ANA Results and the suggested interventions to enable them to develop School and District individualised Improvement Plans for Literacy and Mathematics in the GET Band (Grades 1 – 9).

2. BACKGROUND:

The Department of Basic Education (DBE) administered the ANA in September 2012 for Grades 1-6 and 9 learners in Languages and Mathematics. ANA is an important strategy to improve the quality of learning outcomes in the education system and to ensure the achievement of targets set in Action Plan 2014. The results are not an end in themselves, but a means to learner improvement and teacher development. Appropriate utilisation of these results must be supported and facilitated at each of the levels of the schooling system, from province to districts, schools and classrooms. This is in reference to Circular 1 of 2013 which identifies ANA Improvement Plan as a key deliverable for 2013.

Areas that need deepened and focused interventions relate to ensuring accelerated improvement of learning outcomes at the Intermediate and Senior Phases. The 2012 ANA results signal that the



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system is definitely responding to the interventions that are in place, particularly for Literacy at the lower grades. The Provincial Education Department therefore put in place a process involving the 23 districts that led to the development of a Provincial ANA Framework for improvement to be implemented in 2013.

The Provincial Office sampled 150 scripts for Grade 3 and 100 for both Grades 6 and 9 per district per subject in order to conduct a question by question analysis. This was, however, an exercise for both the districts and the province to emerge with a framework. All schools were expected to complete the analysis process (after learners completed the ANA tests in 2012) for grades 1 to 6 and 9 and identify the areas that learners did not perform well in.

3. RESPONSIBILITIES:

3.1 PROVINCE will ensure that:

- a Provincial ANA Framework for Improvement has been developed for districts and schools (See Annexure A).
- a template is provided for districts and schools to facilitate and standardize the development of their Improvement Plans (Annexure B & C).
- Districts are monitored to track implementation of 2013 ANA Improvement Plan at both district and school levels.
- districts/ schools are monitored and supported on identified skills and competences that learners could not demonstrate.

3.2 DISTRICTS will ensure that:

- Meetings are convened with SMTs to mediate the contents and expectations of Circular 2 of 2013.
- the District findings and intervention strategies are collated from the schools' Improvement Plans (Annexure C).
- the identified areas are categorised into teacher development and support as well as teaching, learning and assessment activities using the Provincial ANA Framework as a guide.
- schools are supported in the process of identifying the areas that need development and support as reflected in the ANA findings.
- schools are monitored and supported with the implementation of the Improvement Plans.
- progress reports are compiled for all schools.
- focused attention is given to identified GET under-performing schools.
- targets are set for Grades 1 to 6 and 9 for Literacy and Mathematics based on their ANA 2012 performance

3.3 SCHOOLS will ensure that:

- the areas in which learners did not perform well are recorded in the template provided (Annexure B).
- the identified areas are categorised into teacher development and support, and teaching, learning and assessment activities using the Provincial Framework as a guide.

- the Improvement Plans for each Grade from 1 to 9 are developed, and must be implemented as per the time frames stipulated in the CAPS Policy, (for example if in Mathematics, the identified gap is Fractions, and this concept in the CAPS Policy must be taught in Term 2, teachers must prepare for the teaching, learning and assessment activities in Term 1).
- teachers are monitored and supported with the implementation of the Improvement Plans by SMTs, Subject Advisors and Education Development Officers (EDOs).
- progress reports on Implementation are submitted to the District Office as per request.
- targets are set for Grades 1 to 6 and 9 for Literacy and Mathematics based on their ANA 2012 performance.

4. TARGETED GRADES

Districts and schools must develop Improvement Plans focusing on the areas that learners did not perform well in 2012 ANA for grades 1 to 6 and 9 learners. In respect of Grades 7 and 8, the improvement plans should be linked to the Grade 9 areas of weakness and analysis of results.

5. TIME FRAMES

- Schools are to submit their Improvement Plans to the District CES Curriculum Management by not later than 15 February 2013.
- District Directors are to submit District Improvement Plans to the Provincial Director GET Curriculum by 22 February 2013.

6. CONCLUSION

The support of the districts and schools in this initiative is crucial for the improved performance of learners in Languages and Mathematics for the GET Band in 2013.



MR. M LANGONZO

ACTING HEAD OF DEPARTMENT



CIRCULAR 2 OF 2013: ANNEXURE A

PROVINCIAL FRAMEWORK: Improving Learner Performance in Literacy and Mathematics/Numeracy

1. FOUNDATION PHASE

1.1 LITERACY (Grades 1 – 3)

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
1. Poor Reading Skills	<p>Teachers are encouraged to:</p> <ul style="list-style-type: none">• Reinforce the five components of teaching reading during the reading focus time: phonemic awareness, word recognition, comprehension, vocabulary and fluency.• Observe learners not to "bark at print" but to understand and interpret what they are reading. Remember learners develop their reading skills gradually from pre-reader, emergent reader, early reader, developing reader, early fluent reader to the independent reader.• Expose learners to a variety of reading texts – talk about and negotiate text as part of the daily routine Time Table must include at least 30 minutes daily on reading for enjoyment, Drop All and Read (DAR) programme.• Use should be made of Graded Readers in schools.• Each teacher should start a "Corner Library" in every class. Ensure that numerous reading books (e.g. magazines, newspapers etc.) are displayed in the classroom at all times.)• Introduce the story by using pictures or illustrations representing the events in the story• Encourage learners to do more daily activities to promote reading and writing skills and be able to observe time frames of activities given. Improve the quality of activities given to learners by referring to pace setters• Learners should participate in a weekly Literacy presentation for the school assembly program: e.g. Read part of an interesting book. Give a brief review of a book. Read part of a text they have written. Recite a poem.• Re-tell a story in their own words (that they have read).• Act out the story that is being read.• Make phonic flashcards and allow learners to build words and sentences

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
2. Difficulty in sequencing events in a story (due to lack of reading with understanding)	<ul style="list-style-type: none"> • Display the pictures in the incorrect sequence and allow learners to: <ul style="list-style-type: none"> ◦ Describe what is happening in each picture ◦ What happened before or after – choose a picture or event ◦ Talk about the sequencing of the events in the story ◦ Order the pictures in the sequence in which the events happened in the story
3. Poor Writing skills	<ul style="list-style-type: none"> • Make phonic flashcards and allow learners to build words and sentences • At the end of reading, invite personal responses to the text by asking learners to comment on the story, story line, characters, story ending, etc. • Do story-telling, story reading and group, pair and individual reading daily • Offer Reading Clubs to expose learners to a variety of text in the LOLT and to develop a love for reading • Let the learners make their own reading books. They can draw their own pictures and write what they feel appropriate. Create authentic reasons for writing: e.g. Product will be read in class, by peers, will be displayed, etc. • Encourage learners to participate in Creative Writing competitions organized by the districts <ul style="list-style-type: none"> ◦ Create opportunities for learners to write independently using the following process of writing: <p><i>PRE-WRITING</i></p> <ul style="list-style-type: none"> • Learners organise their ideas about the topic using the following techniques: brainstorming, drawing, grouping words, discussion, role play • Decide on a title for the story <p><i>DRAFT</i></p> <ul style="list-style-type: none"> • Group ideas into the beginning, middle and end of the story • (Encourage learners to break the story in at least TWO sections/paragraphs) <ul style="list-style-type: none"> • Allow learners to freely write and do not penalise them for grammatical mistakes, spelling and punctuation at this stage of the writing process. <p><i>EDITING</i></p> <ul style="list-style-type: none"> • Allow learners to self- edit for spelling, punctuation, grammar, sentence structure • Teachers need to monitor whether learners have correctly grouped ideas into paragraphs.
4. Unable to divide sentences into paragraphs and write in logical sequence	

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
	<p>PUBLISHING</p> <ul style="list-style-type: none"> • Learners now write the final copy of their story • Display the stories in the classroom
<p>5. Struggling to re-write sentences with correct punctuation</p>	<ul style="list-style-type: none"> • Provide learners with multiple opportunities to re-write sentences with correct punctuation. • Use different types of sentences e.g. <ul style="list-style-type: none"> ◦ a statement – Nomsa is reading a book. ◦ a question – Where is your picture? ◦ a command – Close your eyes now! <p>Point out the punctuation used for each of the sentence types.</p>
<p>6. Unable to write the plural form of words</p>	<ul style="list-style-type: none"> • Language should be taught in context – draw the learners' attention to plurals in texts used for shared reading. Aspects of language teaching can grow from shared reading and writing opportunities. • Encourage learners to build own word bank and personal dictionary
<p>7. Difficulty in interpreting and responding to higher order questions</p>	<ul style="list-style-type: none"> • Engage learners in: <ul style="list-style-type: none"> ◦ Low order questions who? What? Where? What does mean? ◦ High order thinking questions e.g. ‘What if? Why do you think...?’ • Get learners to answer in full sentences (Learners can work in pairs) • Encourage learners to do more daily activities to promote reading and writing skills and be able to observe time frames of activities given. Improve the quality of activities given to learners by expanding and intensifying the level of questions to accommodate the varying abilities of learners. Teachers must understand and recognise the different levels of questioning techniques.

1. FOUNDATION PHASE
1.2 MATHEMATICS (Grades 1 – 3)

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES TEACHING HINTS
<p>1. Unable to identify the pattern of counting backwards in 20s</p>	<ul style="list-style-type: none"> • Learners must do rational and rote counting on a daily basis in the number range specified in the CAPS policy prescripts. Teachers are reminded that a child's sense of number is developed through counting. Therefore expose learners to the three levels of counting namely; counting all, counting on and build up and break down as part of the counting routine daily. <p>Include the following counting activities in small groups:</p> <ul style="list-style-type: none"> ○ Estimate a collection of objects or counters ○ Count grouped objects to assist learners to learn to count in groups (skip counting) ○ Count objects arranged in grids to help learners to skip count and construct their conceptual knowledge of commutativity e.g. $4 \times 5 = 5 \times 4$ depending on how the objects are arranged in the grid ○ Counting items where part of the collection of items is hidden – this forces learners to count in multiples ○ Counting collections of objects that can be quite naturally broken up into smaller collections that can be counted more easily. • Introduce fractions through word problems that require sharing. • Allow learners to solve and explain solutions to practical problems that involve equal sharing leading to solutions that include unitary and non-unitary fractions. • Introduce fractions by using an identifiable whole such as a bar of chocolate. Once the learners understand what the object is, they will be able to solve the problem. • Introduce fraction names from the beginning and later introduce the fraction symbols. • Once learners know what a fraction is and how to name them, the learners are ready to be introduced to diagrams to further build their understanding of fractions.

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES TEACHING HINTS
2. Difficulty with the sequencing of common fractions	<ul style="list-style-type: none"> • Get learners to draw the diagrams and to cut them into the fraction pieces. Learners can then physically count how many parts are there altogether and show the non-unitary fractions. • Engage learners in small group work on a daily basis.
3 Lack of knowledge of Basic Number Concept	<ul style="list-style-type: none"> • Teacher need to have number charts on the walls as well as flash cards with the number names and number symbols. • Learners must read and/or write few number names on a daily basis.
4. Poor computational skills on place value	<ul style="list-style-type: none"> • Teachers must use flard cards to teach learners Place Value. • Learners must have access to flard cards • Teacher to use the appropriate language of Mathematics when teaching Mathematics
5. Lack of knowledge of basic operations especially subtraction and division	<ul style="list-style-type: none"> • Teachers are to change their methodologies i.e to do away with column arithmetic and algorithms in the Foundation Phase. This is too abstract. Learners must break down numbers before adding, subtracting, multiplying, dividing doubling and halving • Allow learners to solve practical problems first at concrete and semi-concrete levels before applying it at an abstract level. <ul style="list-style-type: none"> ◦ Make use of concrete apparatus such as counters, number grids, flard cards and number lines. ◦ Get learners to draw the solution and explain their thinking ◦ Get learners to use the methodology of building and breaking numbers in whole hundreds, ten and units to do the calculations

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES TEACHING HINTS
6. Difficulty in solving word problems	<ul style="list-style-type: none"> • Use examples of problems for problem solving that is related to the context of the learner – authentic and socially meaningful. • Teach learners how to tackle a problem e.g. <ul style="list-style-type: none"> - Read the problem - Understand the problem - Choose the correct operation - Solve the problem - Answer the problem - Check the answer
7. Difficulty in solving word problems involving money	<ul style="list-style-type: none"> • Use real life situations to give learners an opportunity to solve money problems involving totals and change in rands or cents – play shop. • Collect advertisements from flyers, newspapers and magazines and allow learners to write and solve their own money problems. • Allow learners to use play money to do their calculations. • Do small group work and allow the learners to get enough practice in breaking amounts into rands and cents before doing written activities in the workbooks.
8. Difficulty in showing analogue time and writing analogue time in words	<ul style="list-style-type: none"> • Work in small groups and allow learners to manipulate the analogue clock to show times using hours, half hours, quarter hours and minutes. • Show different times and ask learners to tell the time. Start with hour, half hour, quarter hour before including minutes. • Get learners to practice to: <ul style="list-style-type: none"> ◦ Write down the time shown on an analogue clock <ul style="list-style-type: none"> ◦ Draw the hands on a clock to show the time indicated • Answer word problems on time

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES TEACHING HINTS
9. Tiling – Difficulty in counting items where part of the collection is missing.	<ul style="list-style-type: none"> • Expose learners to the following counting activities in small groups: <ul style="list-style-type: none"> ◦ Estimate a collection of objects or counters ◦ Count grouped objects to assist learners to learn to count in groups (skip counting) ◦ Count objects arranged in grids to help learners to skip count and construct their conceptual knowledge of commutativity e.g. $4 \times 5 = 5 \times 4$ depending on the objects arranged in the grid ◦ Counting items where part of the collection of items is hidden – this forces learners to count in multiples ◦ Counting collections of objects that can be quite naturally broken up into smaller collections that can be counted more easily. ◦ Teachers must expose learners to many concrete pattern building and tiling, then picture patterns and lastly number patterns

Factors that could affect performance of Learners for Languages and Mathematics in Foundation Phase

Generic:

- Large learner numbers per class
- Senior Phase teachers placed into Foundation Phase classes
- SMT's do not fully understand the learning methodologies that are required to be employed for effective learning in the early grades
- Insufficient reading material , flash cards and phonic posters
- Learners with barriers in the mainstream
- Lack of proper planning
- Formal Assessment Tasks too loaded
- Not sufficient emphasis on teaching and consolidation of content, concepts and skills
- LOLT not the HL of learners
- Low-socio economic conditions

Teaching, Learning and Assessment: Nature of support to be provided to teachers by SMTs and Subject Advisors

- Provide weekly planning with Formal Assessment Tasks and Assessment Tools
- Conduct frequent circuit meeting gatherings to guide and mentor teachers to implement the weekly plans and assessment examples
- Share best practice through SBA
- Conduct on-site support to assist with classroom organisation and methodology, especially small group work and independent work
- Provide opportunities for professional gatherings to share ideas, material and to provide support e.g. circuit meetings, SBA Sessions
- Remind teachers to consult the relevant national and provincial guidelines on "Teaching Reading in the Early Grades", National DVDs, National Learner Workbooks, Numeracy Handbook', National DVDs and Maths Proficiency Guide, Mental Maths Booklets
- Conduct Language and Mathematics Support Workshops with the focus on underperforming schools.

Emphasize the following in meetings with teachers:

- Expose learners to a variety of reading texts – talk about and negotiate text as part of a daily routine
- Work in small groups to teach reading and numeracy skills and create opportunities for learners to work independently
- Analyse assessment results quarterly to inform subject improvement plans
- Study the ANA exemplars to assist in the preparation of tasks and for formal assessment

2. INTERMEDIATE AND SENIOR PHASES

2.1. MATHEMATICS: GRADE 6

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
Inability to name a given object and stating number of vertices and edges, relating an object to its net and differentiating between shapes.	<ul style="list-style-type: none"> Provide learners with concrete materials and diagrams where they can name the object, count number of vertices and edges and present them as nets. (e.g. empty rectangular boxes like those of powdered soap or cereals and types of boxes with different number of faces).
Problem in stating a transformation performed.	<ul style="list-style-type: none"> Make use of real life transformations first, and then move to complex ones. One can also make use of transparencies or tracing paper to demonstrate differences between reflections, translations and rotations. Investigate various rules for these transformations using investigative approaches.
Poor performance in probability.	<ul style="list-style-type: none"> Learners should be taught the language of probability. Use more practical approaches to investigate rules in Probability/Chance. Make sure learners are well versed with fractions before dealing with probability/chance.
Inability to organize data and calculate median	<ul style="list-style-type: none"> Start by teaching learners to arrange numbers from smallest to biggest when ordering ungrouped data. Teach differences among the various measures of central tendency, e.g. mean; mode & median

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS	
Limited knowledge of patterns. Difficulty in giving the next number in a sequence (2, 3, 5, 8). Difficulty in matching number sentences, working with numbers in the given sequence	<ul style="list-style-type: none"> • Learners should be made to recognise and appreciate patterns all around them. <ul style="list-style-type: none"> ◦ When teaching these concepts the teacher should start with simple patterns <p>Ensure that learners</p> <ul style="list-style-type: none"> • see what is the same thing that happens all the time (Sameness) • make own rules from their observations • test their conjectures • Teach these in themes i.e linear patterns, quadratic patterns as well as other forms of patterns for learners to formulate a structure. • Learners should be given a lot of practice in reading and understanding patterns involving whole numbers and decimals, matching numbers sentences. 	
Inability to find the value of x in a given sentence. Inability to count in decimals.	<ul style="list-style-type: none"> • Learners should be made to understand the relationship between x and the place holder. The concept of additive and multiplicative inverses should be thoroughly explored to ensure their application. Learners should test their solutions. • Emphasis should be on the concept of place values when teaching decimal fractions. 	
Inability to differentiate between multiples, factors and prime numbers.	Learners should be:	<ul style="list-style-type: none"> • well taught rules of divisibility. • made to understand the concept of LCM and HCF. • To enhance this concept further learners should be engaged in games when addressing factors, multiples and prime numbers • Multiples, factors and prime numbers should be addressed in the mental maths activities
Inability to divide 4 digit by 3 digit numbers.	<ul style="list-style-type: none"> • Start with division of 2 by 1 digit numbers , then division of 2 by 2 digit numbers before embarking on this level of numbers • Learners should not use calculators but use the long division methods be employed 	

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
Inability to solve word problems involving selling price and profit.	<ul style="list-style-type: none"> • Use Maths dictionaries to improve language in Mathematics to unpack language embedded in word sums • Problem solving and word sums should not be a once off activity but consistently taught with all other LOs throughout the year.
Inability to solve problems involving speed , distance Inability to read accurately from a scale.	<ul style="list-style-type: none"> • Collaborate with Language teachers to improve language comprehension • Engage learners in practical activities outside the classroom within their environment e.g use playing fields, stop watches • Learners should practically read on scale to verify their accuracy, and taught how to avoid error of parallax
Inability to solve problems involving time, capacity and SI conversions between units.	<ul style="list-style-type: none"> • Teachers should use investigative approaches to find relationships in grams and kilograms, as well as time units by doing experiments. Also the concept of proportionality is critical for learners to master conversions

GENERIC RECOMMENDATIONS TO IMPROVE LEARNER PERFORMANCE IN MATHEMATICS – GRADE 6

Improvement of Mental Maths skills

Devote 10 minutes of the one hour every day for mental Maths activities utilising the supplied resources.
 Establish competitions within classes, schools and clusters and district level.
 Provincial Mental Maths Competitions should be an annual event.
 SMTs should ensure Mental Maths is implemented at school.
 Give written tasks or 10 minutes Mental Maths regularly e.g. twice a week.
 Weekly acknowledge the best performers in every school.
 There should be inter-school mental maths Quiz, within clusters ending up with a champion. Schools must fully utilise the 1hour periods and 6 hours weekly in order to complete work to be covered in a year

Ensure to include these important Mental Maths Strategies:

- Estimation
 - breaking down numbers or partitioning
 - rounding off and compensating doubling and halving
 - using addition and subtraction as inverse operations
 - using multiplication and division as inverse operations
- Double
- Bridging a 10 or 100
- Counting on

To address general content and methodology gap

- Teachers should work collaboratively at school and cluster levels in order to plan and workshop each other as learning area forums.
- Develop "How I teach" forums to assist each other with problematic areas, where best practices are shared.
- Introduce Maths Open Days commencing at school level, to cluster through to district level.
- There should be professional development programs led by HODs in each and every school.
- Teachers should become members of professional development organisations such as Association for Mathematics Education in South Africa (AMESA), South African Association for Research in Mathematics, Science and Technology Education (SAARMSTE), etc
- Common quarterly tests must be written in clusters in all the grades.
- Schools should have remedial programs developed by teachers to assist learners.
- Give informal tests regularly after each concept.
- Learners should be given ample time to practice regularly by doing daily class work and homework.
- Make use of the internet if accessible to research some topics and latest trends in Mathematics teaching, as well as professionally collaborate, nationally and globally with Mathematics teachers

2.2 MATHEMATICS GRADE 9

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
Inability to do Financial Mathematics involving compound interest and hire purchase.	<ul style="list-style-type: none"> • Unpack the language embedded in Financial Mathematics • Expose learners to real life application of financial Maths • Information sharing sessions in financial mathematics • Administration of common tasks on the topic to familiarize learners with the questioning style.
Problem involving simplification of expressions involving indices.	<ul style="list-style-type: none"> • Expansion of whole numbers in the form of exponential forms e.g $32=2\times2\times2\times2\times2=2^5$ • Investigations of the laws of exponents • Giving learners more activities on the application of the laws of exponents e.g $2^y \times 2^z = 2^{y+z}$
Inability to do calculations involving ratio.	<ul style="list-style-type: none"> • Optimal use of work books, ANA exemplars, common lesson plans and other useful resources. • Monitoring and supporting teachers on the use of the documents listed above.
Problem In doing Multiplication and Simplification of algebraic expressions with brackets.	<ul style="list-style-type: none"> • Learners to be exposed to a variety of activities that require the use of BODMAS and the distributive law.
Inability to do Factorization of expressions	<ul style="list-style-type: none"> • Emphasis must be placed on factorizing completely or fully. • Simplification of brackets need to be mastered as a prerequisite to factorization

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
Problems with Generalization of patterns	<ul style="list-style-type: none"> • Learners should be made to recognise and appreciate patterns all around them. • When teaching these concepts the teacher should start with simple patterns • Ensure that learners see what is the same thing that happens all the time (Sameness). • make tentative rules based on their predictions • test their conjectures (predictions) • make a generalisation • Teach these patterns in themes i.e linear patterns, quadratic patterns as well as other forms of patterns for learners to formulate a structure. • For linear patterns: investigate importance of common difference being found in the first level , relate common difference d to the gradient m, and link the value of y when $x=0$ with the constant value c: $y = mx+c$. Draw graphs to demonstrate this relationship. • In Quadratic Functions : Through investigation, learners should relate common difference found at level 2 to d and conclude that $a=1/2 d$, c is found the same way as in linear pattern i.e find y when $x=0$ and substitute any point (x,y) to find the value of b in the equation $y=ax^2+bx+c$. This is one method
Problem in Line graphs ▷ Gradient ▷ Plotting the graph ▷ Intersection points of two lines	<ul style="list-style-type: none"> • Putting emphasis on the use of graph papers for accuracy and determining the equation of a given graph. • Plotting linear graphs using the table method. • Investigations to be done where learners can be made to understand the concept of varying gradient and y-intercept. • Emphasise that at the point of intersection graphs share same values.
Problem in finding Solution of exponential equations	<ul style="list-style-type: none"> • Revision of prime factors done in grade 8. • Emphasise the basic concepts in this regard i.e <ul style="list-style-type: none"> • If $a^x = a^y$ then $x=y$ and • If $a^x = b^x$ then $a=b$

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
Inability to solve equations with fractions	<ul style="list-style-type: none"> • Extensive revision of fractions with particular emphasis on the LCD. • Introduce decimals as tenths, hundredths thousandths and relate these to fractions and percentage • Teachers should use investigative approaches to find relationships in litres and millilitres, metres and kilometres etc by doing experiments.
3. Problem with different components of 3D objects including cylinders.	<ul style="list-style-type: none"> • Giving learners a practical project on creating different 3D objects with specified diameters, lengths, breadths and heights will assist in this regard
Problem with the concept of similar and congruent triangles and relevant deductions.	<ul style="list-style-type: none"> • Use of concrete objects and diagrams to explain the concept of congruency and similarity. • Integration of congruency with transformational geometry. • Emphasis must be put on the properties of different geometric figures.
Inability to find unknown angles where there are parallel lines cut by a transversal.	<ul style="list-style-type: none"> • Deduction and the identification of equal angles between two parallel lines cut by a transversal to be prioritised.
Problem in finding the volume of a cube given one side.	<ul style="list-style-type: none"> • Revision of formulae and their applications should be emphasised • Give learners various activities that require the application of the formulae.
Inability to solve problems involving speed, distance and time.	<ul style="list-style-type: none"> • Workshops on application of formulae and the relevant units.
Problem in calculating perimeter if all the sides are halved.	<ul style="list-style-type: none"> • Revision of all dimensions.
Problem in calculating surface area of a rectangular prism and the height of a cylinder if its capacity is given.	<ul style="list-style-type: none"> • Learners are to be taught application of formulae and rounding off. • Learners should be encouraged to master the calculator skills and apply the volume formula.
Inability to differentiate between a histogram and a bar graph.	<ul style="list-style-type: none"> • Learners are to be taught how to draw and interpret a variety of graphs.
Problem with the concept of class intervals.	<ul style="list-style-type: none"> • Revision of grouped and ungrouped data should be emphasised

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
Inability to organize numerical data in order to find a median.	<ul style="list-style-type: none"> • Revision of work done in grade 8 is critical • The arrangement of numerical data in ascending and descending order to be emphasized prior to finding the measures of central tendency e.g finding the median.
To address content on Data Handling	<ul style="list-style-type: none"> • Use more practical approaches to investigate rules in Probability/Chance. • Make sure learners are well versed with fractions before dealing with probability/chance. • Also make use of STATS SA material as an additional resource.

GENERIC RECOMMENDATION TO IMPROVE LEARNER PERFORMANCE IN MATHEMATICS – GRADE 9

To address general content and methodology gap

- Teachers should work collaboratively at school and cluster levels in order to plan and hold workshops as learning area forums.
- Develop "How I teach" forums to assist each other with problematic areas, where best practices are shared.
- Introduce Maths Open Days commencing at school level, to cluster through to district level.
- There should be professional development programs led by HODs in each and every school.
- Teachers should become members of professional development organisations such as Association for Mathematics Education in South Africa (AMESA), South African Association for Research in Mathematics, Science and Technology Education (SAARMSTE), etc
- Common quarterly tests must be written in clusters in all the grades.
- Schools should have remedial programs developed by teachers to assist learners.
- Give informal tests regularly after each concept.
- Learners should be given ample time to practice regularly by doing daily class work and homework.
- Make use of the internet if accessible to research some topics and latest trends in Mathematics teaching, as well as professionally collaborate, nationally and globally with Mathematics teachers

2.3 LANGUAGES GRADE 6 AND 9

It should be noted that:

- the focus or domains of assessment in grades 6 and 9 are identical with the exception of "Reading and viewing" of a Poetry Text which is NOT assessed in grade 6.
- the Key findings (areas of poor performance) and the recommended remedial strategies / teaching hints for grades 6 and 9 are also the same and therefore addressed simultaneously in this document.
- grade 6 findings must inform the development of grade 4 and 5 plans and grade 9 findings should inform grade 7 and 8 plans

Focus Domain: 1. COMPREHENSION

The 1st focus or domain of assessment in grades 6 & 9 is "Reading and viewing" of a NARRATIVE/WRITTEN TEXT; (E.g. Extracts from novel, short story folklore, drama, film newspaper text, magazine article, poem etc.)

Testing whether the learner is able to ...

- Read any narrative/ written text with understanding and respond to Questions based on the Text
- Answer simple questions that respond to emotions from a written text
- Make meaning of written text and demonstrate by extracting information directly from the text/story

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
Learners were expected to read a text on their own and respond to questions that were pitched at different levels of complexity in terms of reading comprehension.	Intensify 'Drop all and read' Improve reading strategies: shared reading, group reading, guided reading and independent reading Establish:

<p>Learners CANNOT/ DO NOT:</p> <ul style="list-style-type: none"> • Infer meaning • understand what they are reading • Understand questions <p>Learners:</p> <ul style="list-style-type: none"> • lack writing skills • have a problem with higher order questions • have limited vocabulary 	<p>They could only express themselves easily when answering questions that required direct extraction of a single-word or a short-phrase from the given text without any motivation or supporting statement. Again it shows that they lacked comprehension and reading skills.</p> <p>Low or poor comprehension skills, invariably leading to children attempting only simple questions that require them to extract information directly from given text.</p> <p>Inability to respond to questions that demand complex skills of inferential reading ("reading between the lines"), e.g. responses to questions that ask: "Why?" (Reasoning); "What do you think?" (Inferential reading).</p> <p>Writing skills are lacking where learners are expected to construct sentences and express their thoughts.</p>
<p>Learners CAN/DO:</p> <ul style="list-style-type: none"> • reading clubs, e.g. "Nali' ball" • bookworm competitions • corner libraries <p>Encourage:</p> <ul style="list-style-type: none"> • participation in all literacy activities • optimal utilisation of workbooks • demonstration lessons (listening and reading comprehension) • orientate teachers on "the teaching of reading strategies" 	<p>Orientate teachers on "the teaching of reading strategies"</p> <p>Promote reading for pleasure and for specific purpose in every possible way.</p> <p>Train learners on how to read a text or paragraph with understanding so that they can be able to process information and answer questions from any written passage.</p> <p>Link the challenges identified through ANA to relevant sections in the workbooks that learners use that have been introduced by the department</p> <p>Encourage learners to read as frequently as possible simple magazines, passages, language texts, etc and encourage them to answer questions that require ordinary reasoning. They must use words, terms or phrases that will make it necessary for the learners to use the dictionary. This will enable them to get used to, and understand everyday phrases. Assess learner reading skills, using programmes such as Early Grade Reading Assessment (EGRA) from the early grades, and providing relevant interventions</p>

Focus Domain:**2. POETRY GRADE 9 ONLY**

The 2nd focus or domain of assessment in grades 9 is "Reading and viewing" of a POETRY TEXT (Not assessed in Grade 6)

Testing whether the learner is able to ...

- Read a Text based on Poetry with understanding and respond to Questions based on the Text

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
<p>Learners:</p> <ul style="list-style-type: none">• generally demonstrated lack of comprehension when confronted with a Text other than a NARRATIVE TEXT which seems to be a permeating problem in our schools• find it difficult to interpret poetry• struggled with figures of speech <p>The department should recommend prescribed poems</p> <p>Make more use of:</p> <ul style="list-style-type: none">• poems as texts while teaching• Workbooks and core reader <p>Oriентate teachers on:</p> <ul style="list-style-type: none">• poem analysis• definition of a poem• structure of a poem• figures of speech, etc. <p>As part of informal Daily Assessment (Class work and Homework) the following could be done to practice this skill:</p> <ul style="list-style-type: none">• Recite: Knowledge of genres e.g. Rap songs, etc.• Provide opportunity to learners to critically respond to the poem that has been given to groups by discussing a set of questions given, e.g. Quote a line from the extract and explain briefly in your own words to prove your answer. <p>The questions will depend on the particular poems that have been selected but could include the following examples:</p> <ul style="list-style-type: none">• What is the poet's intention or message?• Quote a line from the poem that supports your answer• How would you describe the mood of the poem?• Quote a line that captures this mood.	

This could be followed by questions directed at:

- the structure and rhyme scheme
- the use of figurative language such as: simile, metaphor, onomatopoeia, and the use of descriptive language.

<p>Focus Domain:</p> <p>3. MULTIMEDIA/ INFORMATION TEXTS:</p> <p>The 3rd focus or domain of assessment in grades 6 & 9 is "Reading and viewing" of a MULTIMEDIA/ INFORMATION TEXT: (Advertisement, picture, cartoon, graph, table, report, recipe, time table, poster etc.)</p> <p>Testing whether the learner is able to ...</p> <ul style="list-style-type: none"> • Read a Multimedia/ Information/ Text with understanding and respond to Questions based on the Text 	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; padding: 5px;">KEY FINDINGS Areas of Poor Performance</th><th style="text-align: center; padding: 5px;">RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS</th></tr> </thead> <tbody> <tr> <td style="padding: 10px;"> <p>Learners generally demonstrated lack of comprehension when confronted with a Text other than a NARRATIVE TEXT which seems to be a permeating problem in our schools (e.g. Advertisement, picture, cartoon, graph, table, report, recipe, time table, poster etc.).</p> <p>Learners experience problems with:</p> <ul style="list-style-type: none"> • transfer information from one mode to another • labelling and drawing </td><td style="padding: 10px;"> <p>Expose learners to different types of texts (e.g. charts, graphs, maps cartoons, posters, text with pictures, educational movies, tables etc.) to teach them how to derive information from a variety of texts.</p> <p>Encourage learners to read "special terms, words, phrases" that will help learners to understand and extract information: (i.e. label axis)</p> <p>Create opportunities for learners to transfer information from one mode to another</p> </td></tr> </tbody> </table>	KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS	<p>Learners generally demonstrated lack of comprehension when confronted with a Text other than a NARRATIVE TEXT which seems to be a permeating problem in our schools (e.g. Advertisement, picture, cartoon, graph, table, report, recipe, time table, poster etc.).</p> <p>Learners experience problems with:</p> <ul style="list-style-type: none"> • transfer information from one mode to another • labelling and drawing 	<p>Expose learners to different types of texts (e.g. charts, graphs, maps cartoons, posters, text with pictures, educational movies, tables etc.) to teach them how to derive information from a variety of texts.</p> <p>Encourage learners to read "special terms, words, phrases" that will help learners to understand and extract information: (i.e. label axis)</p> <p>Create opportunities for learners to transfer information from one mode to another</p>
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**Focus Domain:
4. SUMMARY WRITING**

The 4th focus or domain of assessment in grades 6 & 9 is SUMMARY WRITING

Testing whether the learner is able to ...

- Respond to a text e.g. to rewrite the original in a new form (E.g. Summary)

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
<p>Most learners displayed a limited knowledge on how to read a text with understanding and to rewrite the original in a new form (E.g. Summary)</p>	<p>Teach the following steps to learners when summarizing a written text:</p> <ul style="list-style-type: none"> ○ Identify and select the main ideas or events and list them in order. ○ Use keywords or key phrases and list the sub-topics that support the main ideas and events. ○ Using the above framework, construct sentences, grouped in paragraphs. <p>Rework and edit the draft paying particular attention to the assessment criteria.</p> <p>In the case of a summary (but also with a paraphrased passage or précis), the emphasis will be on the accurate analysis of essential detail, synthesized and reproduced in a new format. Language structures and conventions will be of particular importance.</p> <p>Remember: Learners will generally struggle if this skill is not adequately practiced as part of ongoing Informal Daily Assessment.</p>

Focus Domain:**5. GRAMMAR / LANGUAGE STRUCTURE AND USE**

The 5th focus or domain of assessment in grades 6 & 9 is GRAMMAR /LANGUAGE STRUCTURE AND USE

Testing whether the learner is able to ...

- Answer questions that will capture ALL ASPECTS of language structures across the spectrum in context

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
<p>General lack in basic literacy skills including basic grammar, correct spelling of frequently used words and proper use of language structures e.g. correct use of prepositions, plural forms, tense, words that mean opposites of given words, etc.</p> <p>Learners grapple with basic language concepts.</p> <p>Others came up with new/ irrelevant sentences, because they did not understand the question.</p> <p>A few did not attempt to answer because learners lack comprehension to read instructions.</p>	<p>Encourage text -based approach to Language development</p> <p>Integrate language structures in all skills</p> <p>Teach and assess language structures in context</p> <p>Use dictionaries</p> <p>Develop and display sight words</p> <p>Give notes on grammar</p> <p>Develop personal dictionary</p> <p>Give weekly tests to determine whether learners mastered grammar in context taught for the week.</p> <p>Engage learners in grammar exercises every week that will capture ALL ASPECTS of language structures.</p> <p>Reading more will enable learners to improve the use of language and proper communication.</p> <p>Incorporate Language structure exercises across the curriculum.</p> <p>Link the challenges identified through ANA to relevant sections in the workbooks that learners use which have been introduced by the department.</p> <p>Enter difficult words that are encountered in the learners' personal wordbooks. Encourage learners to look up the meaning of difficult words</p> <p>Teach the rules of Language Structure & use frequently. Continuous application of these rules will enhance the learners' skills and knowledge.</p>

Focus Domain:
6. WRITING (CREATIVE and FUNCTIONAL)
The 6th focus or domain of assessment in grades 6 & 9 is **WRITING (CREATIVE and FUNCTIONAL)**

Testing whether the learner is able to ...

Respond to a question that requires him/ her to do:

- Creative writing (Narrative-, descriptive writing etc.)
- Functional writing (letters, advertisements, diary entries, reports, posters, e-mails etc.)
- Write for social purposes
- Use correct spelling when constructing sentences
- Read a story and be able to write an introduction or ending

KEY FINDINGS Areas of Poor Performance	RECOMMENDED REMEDIAL STRATEGIES/ TEACHING HINTS
Lack of understanding of text Inability to select main ideas Inability to construct sentences Unable to follow instructions Poor spelling, paragraphing, punctuation, poor expression and many grammar errors Inability to creatively write own text from given prompts (e.g. given a story and asked to write an introduction or ending) Good writing skills are lacking where learners are expected to construct sentences and	Orientate teachers on writing skills, e.g. sequencing of events Teach learners to identify key words Let learners write one extended writing piece a week Make use of pictures to enhance writing skills Teach learners the writing process (i.e. The correct technique of writing creatively – pre-composing, planning, draft, editing and proof reading. Also teach them the correct structure of a letter, i.e. introduction, body, and conclusion, should also be taught.) Conduct creative writing competitions Support learners by using writing frames Train learners on an ongoing basis on spelling words correctly from foundation phase level. Correct spelling, grammar and punctuation marks are the source of demonstrating excellent creative writing skill. Let learners spend time in extended writing periods.

<p>express their thoughts</p> <p>The majority of learners do not have the necessary vocabulary and therefore most do not attempt to answer the question on extended Writing, they simply leave it blank</p>

GENERIC RECOMMENDATIONS TO IMPROVE LEARNER PERFORMANCE IN LANGUAGES – GRADE 6 and 9

GENERIC FINDING

In general both the Intermediate and Senior Phase learner's poor "Reading Skills" impacted negatively on their performance in **ALL 6** of the above Domains of Assessment / Components of the Languages Learning Area

RECOMMENDATIONS/ IMPROVEMENT STRATEGIES

In the Languages Learning Area, every learner should develop effective reading and viewing skills

What Intermediate Phase and Senior Phase learners need to be successful as readers is:

- Confidence
- A positive attitude
- A desire to read
- A need to read
- The heart to take risks
- **Prior knowledge:** often limited or insufficient

- Prior knowledge of:
 - The **topic** in general
 - Specific **vocabulary** used in the text
 - Structure, format, text knowledge

Reading should be done for a specific purpose e.g.:

- Reading for pleasure e.g. Magazines, comics
- Reading for practical reasons e.g. Recipe, train timetable, washing instructions
- Reading to find specific info e.g. maps, graphs, telephone numbers, a word in a dictionary
- Reading to learn and memorize e.g. Xhosa vocabulary, chemical formulae
- Reading to critically evaluate e.g. an article on a topic on which you need to form a viewpoint
- Reading for general ideas e.g. paging through an encyclopaedia

Useful reading techniques for both the Intermediate and Senior Phase Reader:

- **Skimming:** to get an overview (*readers practice to let the eyes glide over the text*)
- **Scanning:** to find specific information in a text (*like a telephone directory or the smalls of a newspaper*)
- **Peeping:** a quick look to help decide whether it is worth reading
- **Word for word reading:** read every word critically while the meaning is interpreted when instructions have to be followed (*recipe, medicine bottle, exam paper*)
- **Studying:** to give account of what was learnt (*studied for a test or exam*)

Successful readers make use of spontaneous strategies to make the process fluent:

- Sample /select chunks of info
- Predict what the next word will be
- Confirm or self-correct automatically
- Integrate info (reading on, thinking back)
- Read in phrases – improve the eye span through practice
- Learn not to fixate on each letter or word

Skilful readers:
When skilful readers read fast, they don't:

- move their heads
- make small lip movements
- sub-vocalize
- use a finger as a guide
- make regressions

Developing readers should work at a reading speed of 200 words per minute.

Develop the thinking skills of the developing reader by:

- **Asking questions:** Why? Who? When? Where?
- **Making predictions:** "I think is going to happen now"
- **Making connections from previous texts, stories, experiences, memories, emotions:** "This makes me think of now"
- **Visualising:** "I can imagine
- **Making inferences:** "I think the reason why she acts like this is because .."
 " I think it means that .."
- **Making summaries:** "We have read now that ..."

CAPS put much emphasis on the “Reading process”

Pre reading:

- Make use of good questioning: Low order questions
Who? What? Where? What does mean?
High order questions
What if...? Why do you think....?

- Create meaning through communication activities
- Teach relevant spelling and other language structures on a daily basis
- Highlight key words in each paragraph that keep the story going
- Let learners glide their finger in a slow S-movement over the text while the eyes follow
- While the eyes move over the text the brain picks up these words and gets an overview (peeping or skimming)

- Write useful and high frequency words on the blackboard or O.H projector (focusing the learners' attention on the spelling or meaningful parts of the words)
- Divide the class into different groups. Each group has a specific, but different reason/purpose why they should read the text e.g.:
 - To investigate a case – looking for clues
 - To count the number of verbs in the text
 - To get info on a specific character
 - To write a news report for the radio
- Mind-mapping:
 - **Know?** What do we all know, or guess about the subject or concept?
 - **Want to know?** We ask questions
 - **Learned?** Write down all the new info. Read, look for info

During reading:

- Shared reading – paired reading – guided reading – independent reading (aloud/silent). The focus will depend on functioning level of the readers and difficulty level of the text
- Learners take turn (in small groups) to role play. While someone reads a story to them or while they participate in shared reading the process is stopped and one of the groups role play one of these skills:
 - Ask questions: "Why? Who? Where?, When?"
 - Predict: "What now?"
 - Visualise: "I can imagine"
 - Summarise: "We have read now that"
 - Make connections from previous texts, stories, experiences, memories, emotions: "I am now thinking of" or "This makes me think of"
 - Infer meaning: " I think it means that"
- The **Cloze** procedure is probably the most effective reading comprehension activity
- Reading comprehension by focusing on important elements of the text e.g. The storyline, the plot, problems, climax, solution, characters
- Practise useful reading techniques eg. Peeping, skimming, scanning, word for word reading
- Skim or peep to get an overview, ask questions, read the text, recite, recall repeat

Post reading

- After reading, opportunities should be created for **spelling**, **debating an issue**, **role play**, **functional writing**, **written dialogues**, **letters to the newspaper**, **word games**

- Make a copy of the article, cut the paragraphs apart – the learners has to re-shuffle it and try to put it back in a logical order
- Write next to each paragraph the main idea in only one or two words

- All these activities should be done in context

Give your learners exposure to different texts types, contexts, contents e.g.:

- Radio news
- Step out: e.g. visit to the zoo
- Radio advert: e.g. "spar good for you"
- A real problem e.g. "fight in class" – discussion
- An activity
- An interesting picture
- A newspaper article
- An interesting object
- Crises e.g. accident (never let a crises go without discussing it – and something good must come out of it)
- A step in e.g. "visit by some one" – invite a carpenter, a doctor or ordinary people with ordinary careers) children value all jobs
- A magazine article
- Vocal song e.g. " play the song" and listen to it
- TV news

Designing a lesson plan:

- Select interesting text
 - Determine aim / objective (skills, knowledge, values, attitudes)
 - Create a context
 - Design learning activities in context
 - Pre – reading: What do they know? Activate prior knowledge, Discuss, ask questions, give vocabulary, get them involved
 - During Reading: Get an overview, adapt technique
 - Post reading: Apply, use different communication skills, reflect
- Continuous assessment: Desired aims and objectives



CIRCULAR 2013

TEMPLATE FOR SCHOOLS TO DEVELOP 2013 ANA IMPROVEMENT PLAN FOR LITERACY AND MATHEMATICS



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ANNEXURE C

CIRCULAR 2 OF 2013

TEMPLATE FOR DISTRICTS TO DEVELOP QBP 2013 AND IMPROVEMENT PLAN FOR LITERACY AND MATHEMATICS