EXAMINATIONS AND ASSESSMENT CHIEF DIRECTORATE

Home of Examinations and Assessment, Zone 6, Zwelitsha, 5600

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2024 NSC CHIEF MARKER'S REPORT

SUBJECT	MATHEMATICAL LITERACY		
QUESTION PAPER	2		
DURATION OF QUESTION PAPER	3hrs		
PROVINCE	EASTERN CAPE		
NAME OF THE INTERNAL MODERATOR	U DLULANE		
NAME OF THE CHIEF MARKER	M DLAMINI		
DATES OF MARKING	1-12-2024 – 12-12-2024		
HEAD OF EXAMINATION:	MR E MABONA		

SECTION 1: (General overview of Learners Performance in the question paper as a whole)

Learner performance has improved in this paper across all centres in the province compared to previous years, there are centres with learners who have performed extremely well and some who have performed poorly. The highest recorded mark for Mathematical Literacy paper 2 is 146/97.3% and the lowest recorded mark is 0/0% for this paper. The candidates are a mixture of full time and part time learners, the part time learners were learners that were not attending any classes hence the big range in performance.

SECTION 2: Comment on candidates' performance in individual questions

The learner performance differs from question to questions as outlined below.

QUESTION 1

(a)   General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?

Question 1 was the best answered question with an average percentage of 58%.

This average percentage for question 1 is lower than what was expected and lower than last year for the sample of 100 scripts. Learners were expected to perform at more than 80% in this question however there were challenges as indicated in the next question.

(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.

Most learners did not get 1.1.2 correctly as they were not able to interpret elevation.

For question 1.2.2, learners did not understand the concept of volume which is area multiplied by height, this resulted in them not being able to interpret the question and therefore losing marks as the figure was unfamiliar to them.

In this question learners also lost marks because of not being able to round according to context (in this case rounding up).

For question 1.3.5, learners are still struggling with conversions and they are unfamiliar with which appropriate conversion factor to use.

Topic on elevations to be taught at schools.

Learners to be exposed to different types of shapes and need to be taught about perimeter area, volume and capacity and they need to also understand how to get to different units like units for perimeter area and volume.

Teachers need to find better methods of familiarising learners with the metric system conversions since there will always be questions on conversions.

(c)Provide suggestions for improvement in relation to Teaching and Learning

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(d)	Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.

Teachers need to teach the concepts before practicing questions in previous exam question papers.

QUESTION 2 (Summary)

(a) General comment on the performance of Candidates in the specific question. Was the question well answered or poorly answered?

This question was fairly performed with an average percentage pass rate of 51%. The least performed question was question 2.2 with an average percentage of 49%.

(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.

2.1.1 Learners were not able to define what an aerial view is.

2.1.2 Some learners could not understand the keyword MAXIMUM.

2.1.3 There is still a challenge about the use of a compass and using it to predict the direction.

2.1.4 Most learners answered this correctly.

2.1.5 Some learners are still struggling with probability and also could not interpret the keyword EXACTLY.

2.1.6 (a) Well answered

(b) The concept of scale is still a challenge for most learners. Some learners lack the skill of using a ruler to measure distance while some do not know the units of measurement in a ruler.

(c) Some learners are not able to properly answer opinion-based questions due to the possibility of language barriers.

2.2 Most learners were not able to comprehend the information given, learners could not interpret the elevation map.

(c) Provide suggestions for improvement in relation to Teaching and Learning.

Learners to be exposed to different kinds of maps.

(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.

Maps and plans may look like an easy topic but some learners are struggling to answer questions in this topic.

Workshops to be organised at district levels to share on how to approach the topic on maps and plans so as to improve learner performance in this topic.

Scale to be also discussed in workshops as this is a question which is poorly performed every year.

QUESTION 3

(a) General comment on the performance of candidates in the specific question. Was the question well answered or poorly answered?

Performance in Question 3 was not good with an average percent of 46%, however, this percentage is better than last year which was 37%. The least performed question was question 3.2 with an average percentage of 42%.

(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.

3.1.1 Learners experienced problems in subtracting times and could not get a correct answer.

3.1.2 Most learners could not correctly interpret the question and just subtracted 1 pillow (11cm). Some learners cannot differentiate between height and width.

3.1.3 Some of the learners did not know which dimensions to substitute on the formula whereas some did not even know how to substitute.

3.2.1 Learners do not know the difference between diameter and radius.

3.2.2 Fairly answered.

3.2.3 This question required learners to first substitute in the given formula using the previous radius and most learners were able to do the first part.

Learners did not know that they had to subtract the area of the hole as the hole will not be painted. Most learners could not convert cm^2 to m^2 . Learners could not use the spread rate.

3.3.1 This question required them to get the cube root which is not part of CAPS however learners could have

scored 3 marks by substituting on the formula and writing the answer in cm but most learners could not substitute on the formula.

3.3.2 Probability is still a challenge to some learners more especially when it is or where they **have to add** values on the numerator.

(c) Provide suggestions for improvement in relation to Teaching and Learning
Learners need to be exposed to different types of questions on measurement. Basic measurement concepts like dimensions need to be introduced in grade 10. Metric conversions need to be memorised by learners, Learners need to understand the concepts of perimeter area and their application for an example area for tiling and painting perimeter for anything done around a figure and they can only understand these if they are thoroughly taught. Teachers need to try and do practical examples for learners to understand measurement starting with simple things like measuring using a ruler. Probability needs to be taught guided by the CAPS document and examination guidelines so that teachers can get direction as to what is expected on this topic.

(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.
Measurement is a challenging topic which needs attention so subject advisors need to organise workshops where teachers can share on how to approach this topic. Teachers need to use the CAPS document and examination guidelines so as to get guidelines as to what learners need to know. Teachers must not use previous question papers without teaching the topics. Basics done in grade 10 need to be revisited when introducing topics. Practical examples on measurement need to be given starting from simple skills of measuring using a ruler.

QUESTION 4
(a) General comment on the performance of candidates in the specific question. Was the question well answered or poorly answered?
This question was poorly answered compared to other questions and the average percentage pass is 44%. The least performed question is question 4.2 with an average percentage of 41%.
(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.

4.1.1 Most learners were not able to interpret the question and read values in descending order instead of ascending order.

4.1.2 Well performed.

4.1.3 Most learners experienced a challenge in substituting correctly in the given formula and those who substituted correctly could not simplify the formula by making the unknown the subject.

4.1.4 Poorly performed question as most learners could not interpret the question.

4.2.1 The concept was unfamiliar to most learners and the information given confused most learners however the top performing learners got all the marks for this question.

4.2.2 Only the top performing learners were able to score full marks in the question and most learners just calculated the area of one garage door and did not multiply by 2 for two garage doors.

4.2.3 Well performed.

(c) Provide suggestions for improvement in relation to Teaching and Learning.

Learners need to be given more exercises that use different formulas and also exercises that focus on simplification, which is making the unknown the subject of the formula.

Application of percentages also needs to be practiced whether its increasing or decreasing using a percentage.

Learners need to be taught to pay attention to key words like in this question as it was mentioned that (excluding the area taken up by the pipes).

Questions with measurement and costing need to be practiced.

(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.

Teachers need to be aware that Grade 12 learners can be unfamiliar with some concepts prescribed by CAPS.

Districts need to develop question banks on each topic which can be used by teachers after teaching the topics.

Teachers must not give learners marking guidelines as they are, as these may confuse learners. Different solutions and methods are used which can be different from the ones taught in class so therefore teachers need to edit the marking guidelines so as to suite the learners.

Subject advisors to discuss the chief markers reports with teachers once they are out to avoid having the same misconceptions every year.

QUESTION 5

(a) General comment on the performance of candidates in the specific question. Was the question well answered or poorly answered?
This question was poorly answered with an average percentage pass rate of 44%. Question 5.3 was the least performed question with an average percentage of 29%.

(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.
5.1.1 Well performed.   5.1.2 Fairly performed question with few learners who could not interpret the map.   5.1.3 Poorly performed question, most learners could not understand that when given the total distance, they are required to calculate a missing distance they had to add the given values and subtract from the total.   5.1.4 Fairly performed question with 73% pass rate.   5.1.5 Poorly performed question. Firstly, as indicated in the previous questions learners lack the skill of substituting in a formula. Secondly, learners cannot convert time to hours. The question required work in hours and not hours and minutes since speed is in kilometres per hour. Lastly, they could not simplify and make speed the subject of the formula   5.2.1 Learners had difficulty interpreting the picture and were unaware that they had to interpret the height of the Uluru from the picture and relate it to the given distance of 1 142 feet.   5.2.2 Fairly performed at 50% but most learners had a challenge in working with 3 ratios,   some learners even after being able to write the 3 ratios had a challenge with the simplified ratio form.   5.3.1 Poorly performed question, the concept of probability as mentioned previously, is still a challenge.   **5.3**.2 Fairly performed question but some learners did not even attempt the question.

5.3.3 (a) Fairly performed question, as most learners were able to read the 2 values from the graph and were awarded marks for being able to read the values.

5.3.3 (b) Poorly performed question, as most learners seem not to have an idea of what they were supposed to do which maybe can be attributed to the fact that it was a last question and they were already tired.

(c) Provide suggestions for improvement in relation to Teaching and Learning

Learners to be exposed to different types of maps so as to be able to read and interpret information in a map.

The formula relating speed, distance and time need to be practiced in different scenarios and learners need to know that they need to convert time and distance depending on in which units is speed given.

Simplifications to make the unknown the subject of the formula needs to be practised.

Different ways of calculating and expressing probability need to be taught.

(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.

Teachers to form clusters where they can frequently share information.

To maximise contact time since Mathematical Literacy needs to be practiced daily.

Learners to be given daily practice exercises and corrections need to be done and explained.

Short classroom tests to be given to learners frequently marked and feedback given.

Even though past question papers have useful questions, they need to be selected according to the topic done at a specific period.

Attendance by learners to be closely monitored.

Submission of work to be monitored so as to introduce a culture of learning discipline and responsibility within the schools.

Common standard tasks to be administered at cluster/district and provincial levels.

Workshops to share teaching methods to be organised by subject advisers at the beginning of each term.

Forms of motivating and encouraging learners to be implemented primary to secondary school level.