basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

ANNUAL NATIONAL ASSESSMENT

GRADE 2

MATHEMATICS

SET 3: 2012 EXEMPLAR

GUIDELINES FOR THE USE OF ANA EXEMPLARS

1. General overview

The Annual National Assessment (ANA) is a summative assessment of the knowledge and skills that learners are expected to have developed by the end of each of the Grades 1 to 6 and 9. To support their school-based assessments and also ensure that learners gain the necessary confidence to participate with success in external assessments, panels of educators and subject specialists developed exemplar test questions that teachers can use in their Language and Mathematics lessons. The exemplar test questions were developed based on the curriculum that covers terms 1, 2 and 3 of the school year and a complete ANA model test for each grade has been provided. The exemplars, which include the ANA model test, supplement the school-based assessment that learners must undergo on a continuous basis and does not replace the school based assessment.

2. The structure of the exemplar questions

The exemplars are designed to illustrate different techniques or styles of assessing the same skills and/or knowledge. For instance, specific content knowledge or a skill can be assessed through a multiple-choice question (where learners select the best answer from the given options) or a statement (that requires learners to write a short answer or a paragraph) or other types of questions (asking learners to join given words/statements with lines, to complete given sentences or patterns, to show their answers with drawings or sketches, etc.). Therefore, teachers will find a number of exemplar questions that are structured differently but are targeting the same specific content and skill. Exposure to a wide variety of questioning techniques or styles gives learners the necessary confidence to respond to different test items.

3. Links with other learning and teaching resource materials

For the necessary integration, some of the exemplar texts and questions have been deliberately linked to the grade-relevant workbooks. The exemplars have also been aligned with the requirements of the National Curriculum Statement (NCS), Grades R to 12, the Curriculum and Assessment Policy Statements (CAPS) for the relevant grades and the National Protocol for Assessment. These documents, together with any other that a school may provide, will constitute a rich resource base to help teachers in planning lessons and conducting formal assessment.

4. How to use the exemplars

While the exemplars for a grade and a subject have been compiled into one comprehensive set, the learner does not have to respond to the whole set in one sitting. The teacher should select exemplar questions that are relevant to the planned lesson at any given time. Carefully selected individual exemplar test questions, or a manageable group of questions, can be used at different stages of the teaching and learning process as follows:

4.1 At the beginning of a lesson as a diagnostic test to identify learner strengths and weaknesses. The **diagnosis** must lead to prompt **feedback** to learners and the development of **appropriate lessons** that address the identified weaknesses and consolidate the strengths. The diagnostic test could be given as homework to save instructional time in class.

4.2 During the lesson as short formative tests to assess whether learners are developing the intended knowledge and skills as the lesson progresses and ensure that no learner is left behind.

4.3 At the completion of a lesson or series of lessons as a summative test to assess if the learners have gained adequate understanding and can apply the knowledge and skills acquired in the completed lesson(s). Feedback to learners must be given promptly while the teacher decides on whether there are areas of the lesson(s) that need to be revisited to consolidate particular knowledge and skills.

4.4 At all stages to expose learners to different techniques of assessing or questioning, e.g. how to answer multiple-choice (MC) questions, open-ended (OE) or free-response (FR) questions, short-answer questions, etc.

While diagnostic and formative tests may be shorter in terms of the number of questions included, the summative test will include relatively more questions, depending on the work that has been covered at a particular point in time. It is important to ensure that learners eventually get sufficient practice in responding to full tests of the type of the ANA model test.

5. Memoranda or marking guidelines

A typical example of the expected responses (marking guidelines) has been given for each exemplar test question and for the ANA model test. Teachers must bear in mind that the marking guidelines can in no way be exhaustive. They can only provide broad principles of expected responses and teachers must interrogate and reward acceptable options and variations of the acceptable response(s) given by learners.

6. Curriculum coverage

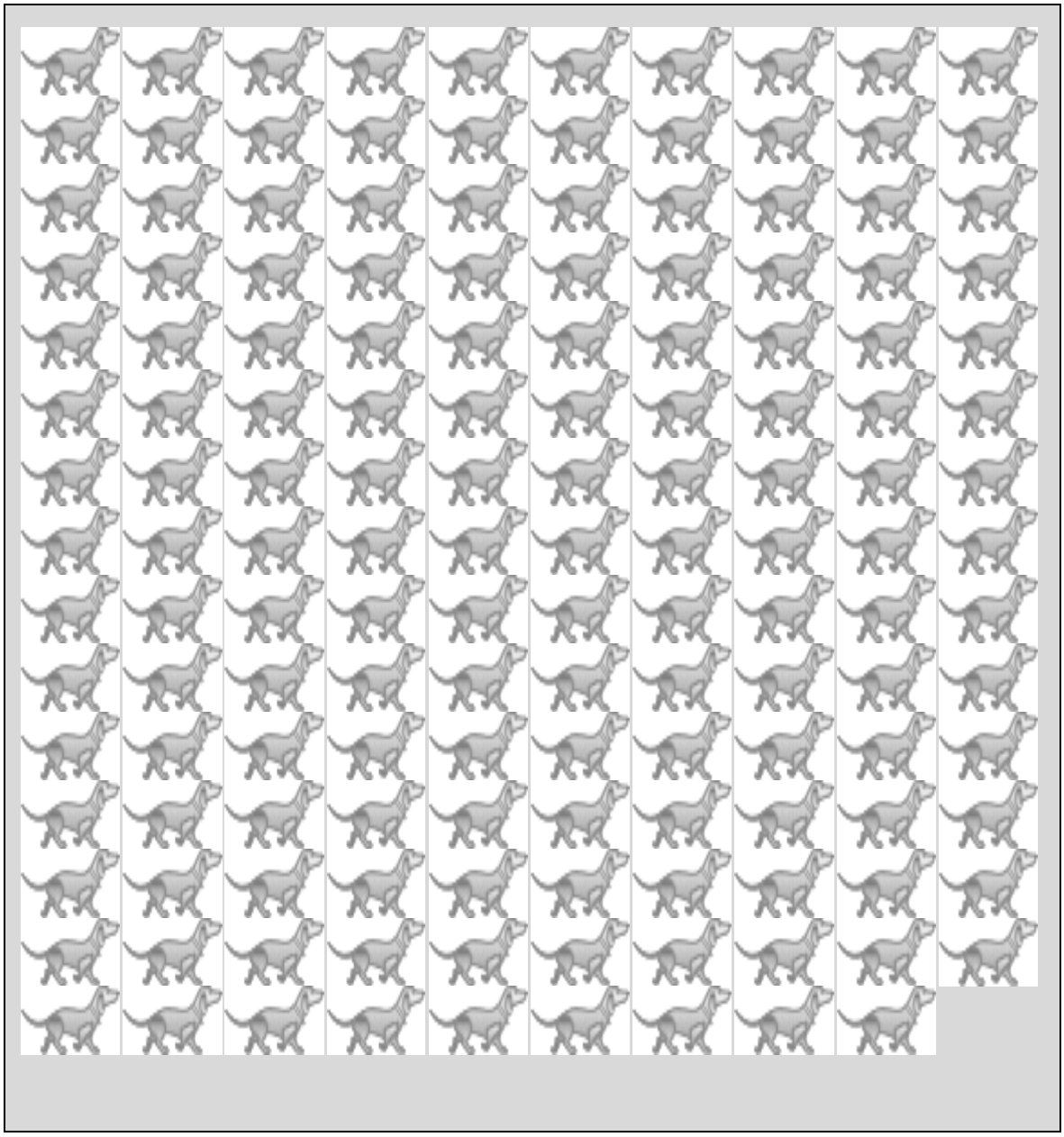
It is extremely critical that the curriculum must be covered in full in every class. The exemplars for each grade and subject do not represent the entire curriculum. They merely **sample** important knowledge and skills and covers work relating to terms 1, 2 and 3 of the school year. The pacing of work to be covered according to the school terms is specified in the relevant CAPS documents.

7. Conclusion

The goal of the Department is to improve the levels and quality of learner performance in the critical foundational skills of literacy and numeracy. ANA is one instrument the Department uses to monitor whether learner performance is improving. Districts and schools are expected to support teachers and provide necessary resources to improve the effectiveness of teaching and learning in the schools. By using the ANA exemplars as part of their teaching resources, teachers will help learners become familiar with different styles and techniques of assessing. With proper use, the exemplars should help learners acquire appropriate knowledge and develop relevant skills to learn effectively and perform better in subsequent ANA tests.

1. **Numbers, operations and relationships**.(0-180)

Look at the picture and answer the following questions.



(a) Count the dogs and write down how many are there altogether. _____

(b) How many groups of **five** dogs are there? _____

(c) How many groups of **ten** dogs are there? _____

(d) How many groups of **two** dogs are there? _____

(e) How many groups of **three** dogs are there? _____

(f) How many groups of **four** dogs are there? _____

2. Fill in the missing numbers.

(a) 162 ; _____; _____ ; 168 ; 170 ; _____

(b) 152 ; 155 ; _____ ; _____ ; 164 ; _____

3. Complete the following number patterns.

(a) 170 ; _____; 150 ; ___ ; 130 ; _____; 110

(b) 105 ; 110 ; _____ ; 120 ; ____ ; _____ ; 130

_____

4. Write the number symbols for the following number names.

(a) hundred and eighty _____

(b) One hundred and eleven _____

(c) One hundred and sixty six _____

5. Write the number names for the following numbers symbols.

(a) 44 _____

(b) 68 _____

(c) 27 _____

(d) 73 _____

(e) 59 _____

6. Draw lines to match the number symbols with the number names.

(a) 49 eighteen

(b) 55 seventy-four

(c) 33 fifty-five

(d) 74 forty-nine

(e) 18 sixty-three

(f) 63 thirty-three

7. Circle the smallest number in each pair.

(a) 21; 12

(b) 55; 33

(c) 46; 64

(d) 32; 23

(e) 73; 37

8. Arrange these numbers from the greatest to the smallest

(a) 10 17 25 43 38

_____ _____ _____ _____ _____

(b) 53 35 75 57 55

_____ _____ _____ _____ _____

(c) 40 63 25 73 68

_____ _____ _____ _____ _____

9. Arrange these numbers from smallest to the greatest.

(a) 11 33 66 55

_____ _____ _____ _____

(b) 53 35 47 74

_____ _____ _____ _____

(c) 24 61 42 16

_____ _____ _____ _____

10. In the number **73**:

(a) the value of the digit **7** is _____

(b) the value of the digit **3** is _____

11. Calculate by using near doubles.

(Example: 24 + 25 = 25 + 25 - 1 or 24 + 25 = 24 + 24 + 1

= 50 -1 = 48 + 1

= 49 = 49

(a) 28 + 29 =

(b) 36 + 37 =_____

12. Calculate by breaking down numbers.

Example: 29 + 34 = 20 + 9 + 30 + 4

= 20 + 30 + 9 + 4

= 50 + 13

= 63

(a) 41 + 33 =

(b) 36 + 37 =

(c) 86 - 42 =

13. Halve the given number.

	Number	Number halved
(a)	124	
(b)	116	
(c)	162	

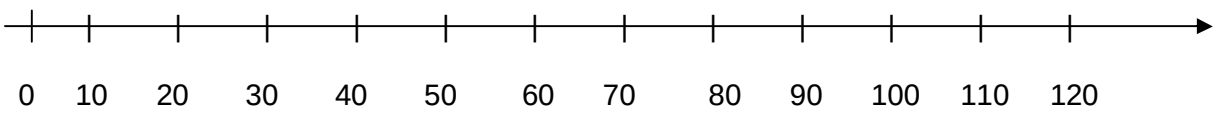
14. Double the given number.

	Number	Number doubled
(a)	19	
(b)	26	
(c)	37	

15. Use the number line to:

(a) add 40 and 30.

(b) subtract 30 from 110.



16. **Problem solving (word sums)**

Answer the following questions.

(a) Tim had 94 marbles. He lost 30 marbles. How many marbles does he have left?

Number of marbles left =_____

(b) Thoko had 52 sweets. She bought 20 more. How many sweets does Thoko have now?

Number of sweets = _____

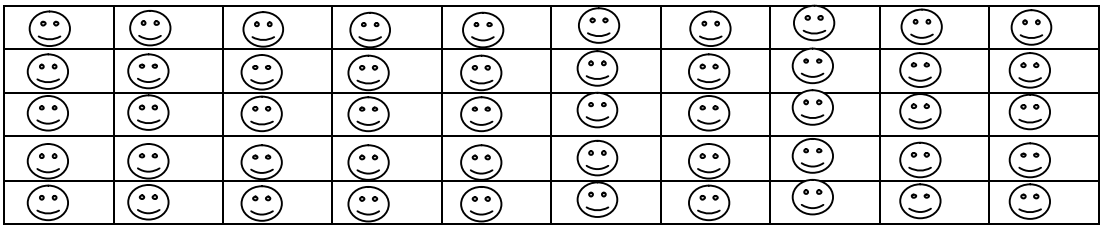
(c) James picked 74 oranges and Ben picked half as many oranges as James. How many oranges did Ben pick?

Ben picked _____ oranges.

(d) Thembi, Lorraine, Mandla and Paul each have 18 sweets. How many sweets do they have altogether?

Total number of sweets=_____

17. **Grouping and sharing**



Look at the above array of faces and then complete each sentence.

(a) There are 5 rows with _____ faces each.

(b) There are _____ faces altogether.

(c) Bongani must put 54 biscuits into packs of 9 each. How many of the packs can he make?

_____

(d) How much will each person receive if R96 is shared equally amongst 8 people?

_____

(e) In a grade 2 class there are 34 boys. The number of girls is double the number of boys. How many girls are there in this class?

_____

18. Answer the following questions.

(a) Divide the above shape into 2 equal parts.

(b) Shade a quarter of the rectangle.

Money

19. Complete the table.

	Price	Paid with	Change
(a)	R71,00		R4
(b)		R20	R6
(c)	R43,00	R50	

20. Betty buys a book which costs R6.50. She pays with a R20 note. Circle her change?

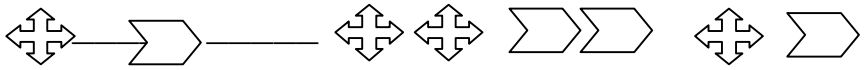
(A) R14.00 (B) R12.00 (C) R13.50 (D) R13.00

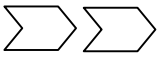
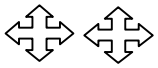
21. Piet has R21.00 and Jack has R14.00. They put their money together to buy a ball that costs R32.00. How much change must they get?

R _____

Patterns.

22. Circle the shapes that comes next in the pattern.



A.  B.  C.  D. 

23. Write down the next 2 numbers in each of the sequences.

(a) 132; 122; _____; _____; 92

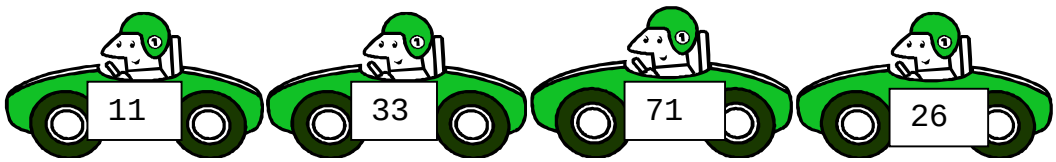
(b) 180; 175; _____; _____; 160; _____

(c) 96; 98; _____; _____; 104; _____

(d) 80; 84; 88; _____; _____; _____

(e) 96; 99; _____; 105; _____; 111;___

24. **Position.**



Here are 4 cars parked in a row.

Complete:

(a) Car number _____ is in the front.

(b) Car number _____ and ____ are behind car number 33.

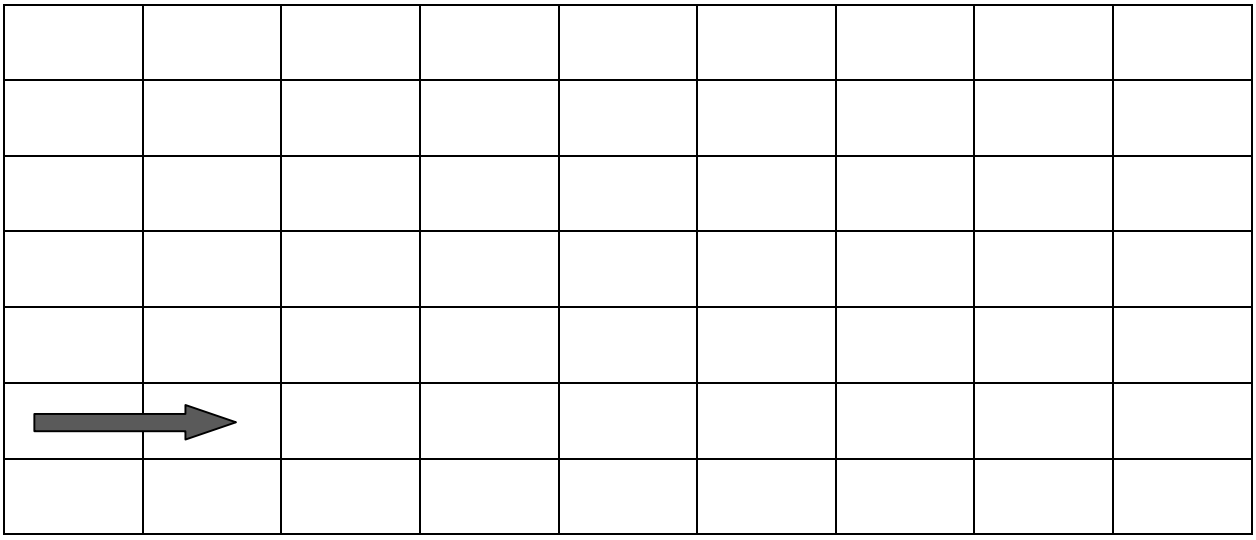
(c) Car number _____ is just behind car number 71.

(d) Car number _____ is just in front of car number 33.

25. Kate travels from home to school by bus. The table below shows the directions and distance, in blocks, that bus travels.

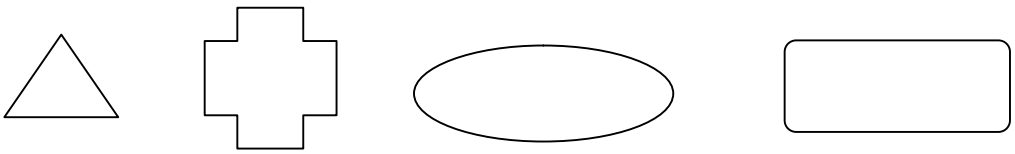
2 →	5 ↑	4 →	3 ↓	2 ←	1 ↓	5 →

Use the information in the above table to complete the grid showing how she travels. The first one has been done for you.

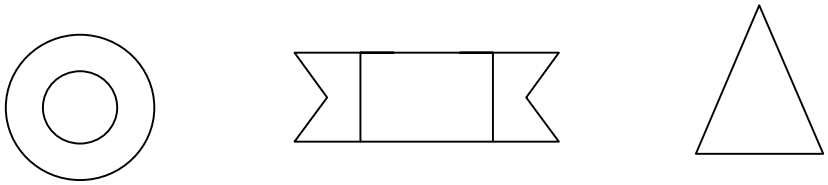


Shapes

26. Tick a shape which has only straight edges.

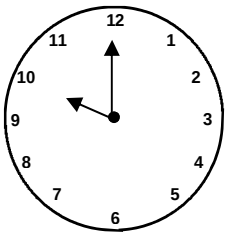
(a) 

Draw a line of symmetry in each of the following shapes.

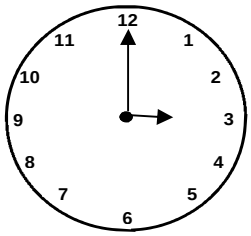
(b) 

Time

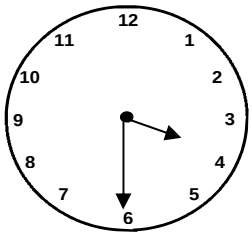
27. Write down the time shown on each of the following clock faces.



a. _____

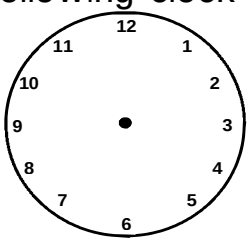


b. _____

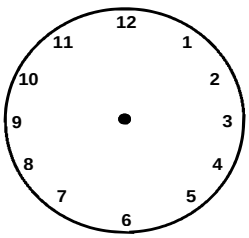


c. _____

28. Draw the minute-hand and the hour-hand on each of the following clock faces to show the indicated time.



6 o′ clock



Half past 4

29. Sindi left her home at 6 o' clock in the morning. She arrived at school half past 8. How many hours did she spend on the road?

_____

30. Count the number of hours from

(a) 7 o' clock to 12 o' clock. _____.

(b) 12 o′ clock to 7 o′ clock. _____.

(c) Half past 4 to half past 9._____.

(d) 6 o′ clock to half past 12.

31.

(a) What day comes 4 days after Sunday? _____

(b) Ken's birthday was 7 days after 14 June. When was his birthday? _____.

(c) What month comes 5 months after August?

_____

(d) What month comes 6 months before November?

_____

(e) Name the shortest month of the year._____

Measurement

Examine the lengths of the 5 lines below to see how long each one is.

Line A _____

Line B _____

Line C_____

Line D _____

32. Answer the questions without measuring the lines.

(a) Line _____ is the longest line.

(b) Line _____ is the shortest line.

(c)Line _____ and line _____ are equal.

Capacity

33. Circle the correct answer.
Milk is measured in:

A. litres B. kilograms C. Kilometres

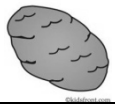
34. Circle the correct answer. Cold drink could be measured in:

A. grams B. millilitres C. kilograms

Data handling

35. The pictograph shows the number of vegetables sold at the supermarket in one day.

Vegetables sold in one day at the supermarket

Number of vegetables					
	7				
	6				
	5				
	4				
	3				
	2				
	1				
		Carrots	**Potatoes**	**Cabbage**	**Garlic**

Look at the above pictograph and then answer the questions.

(a) Which vegetable was sold the most? _____.

(b) Which vegetable was not sold? _____.

(c) How many garlic were sold? _____.

(d) How many vegetables were sold altogether?

_____.