

## basic education

Department: Basic Education REPUBLIC OF SOUTH AFRICA

## ANNUAL NATIONAL ASSESSMENT

# **GRADE 1**

# 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.

### Numbers, Operations and Relationships.

1. Count the pictures of the flowers and fill in the correct number of flowers.



2. Count the pictures of the stars and write down the number of the stars.



3. Count the pictures of the bunches of balloons and write down how many bunches there are.



4. How many groups of 5 flowers are shown in the picture?

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5. How many eyes are there on the 8 masks?



Fill in the missing numbers in questions 6 to 9.



- 7. 13;14;\_\_\_\_;18
- 8. 16; \_\_\_\_; 14; \_\_\_\_; 12
- 9. 10; \_\_\_\_; \_\_\_\_; 6

- 10. Draw a line to match the correct number name and number symbol.
  - a. Five 10
  - b. Ten 2
  - c. Nine 5
  - d. Two 9
- 11. Look at the picture. Draw a circle around the number which matches the number of articles in each group.

a.	$\triangle \land \triangle \land \land \land \land$	4	6	8	10
b.		4	6	8	10
C.	$\bigcirc \bigcirc $	4	6	8	10
d.	$\bigcirc \bigcirc $	4	6	8	10

12. Draw lines to connect the number symbols that are the same.



13. In each box write the number symbol to match the number of objects in the frame.



	Objects	Number symbol	Number name
a.		2	
b.			Nine
C.	$\bigtriangledown$		Three
d.		7	

14. Complete the table below.

15. Write the number names of the following symbols.

a.	1	
b.	4	
C.	8	
d.	10	
e.	5	

16. Link each number symbol with its number name.

7	
1	
3	
9	
2	

Two
Nine
Seven
One
Three

17. Arrange the following numbers from the smallest to the greatest.

11 ; 14 ; 10 ; 13 ; 12

 Write the numbers written on the train from greatest to smallest.



Put the numbers written on the bowls from smallest to greatest.



20. Look at the picture and then fill in "the most", "the least" or "just as many" to complete each sentence.



21. Look at the picture and then answer the questions.



22. Look at the pictures of the animals and fill in a word to complete each sentence.



24. Write the missing numbers in their correct places on the number line.



25. Fill in the missing numbers on the number line.



26. Look at the shapes on the number line and draw each in the correct frame.



	Position	The shape
а.	Place 10	
b.	Place 11	
C.	Place 13	
d.	Place 15	

### **Place values**

1. Complete each number sentence.

a. 12 = 1 ten + \_\_\_\_\_ ones

- b. 15 = 1 ten + \_\_\_\_\_ ones.
- 2. Write down which number is shown in each of the following.



## Operations with numbers

1. Count the shapes on the butterfly's wings and fill in the answer.



Double	4	=	
--------	---	---	--



Double	7	=	
--------	---	---	--

2. Fill in each answer.

а.	Double 5	=
b.	Double 6	=
C.	Double 2	=

- 3. Fill in the correct number name. The first one has been done for you.
  - a. Double five is ten.
  - b. Double one is \_\_\_\_\_.
  - c. Double six is \_\_\_\_\_.
  - d. Double three is \_\_\_\_\_.
- 4. Use the following pictures to halve the numbers.



5. Cross out half the circles and then fill in the answer. The first one has been done for you.



6. Count in twos from 0 to 14. Show the jumps on the number line. The first 2 jumps have been done for you.



Answer questions 7 to 20 involving addition, subtraction, and repeated addition, grouping and sharing.

7.	а.	4 + 3 =
8.	b.	5 + 6 =
	C.	2 + 4 =
	а.	7 + 10 =
	b.	8 + 4 =
	C.	9 + 6 =



10. Count the fingers and fill in your answer.

9.



20

11.

- a. 4 +1 + 2 = \_\_\_\_\_
- b. 2 + 0 + 9 = \_\_\_\_\_
- c. 1 + 5 + 6 = \_\_\_\_\_

12.

a.	7	-	2	=	
b.	13	-	3	=	
C.	8	-	8	=	
d.	15	-	1	=	

13.



14.

- a. 10 \_\_\_\_ = 7 b. 8 - 3 = \_\_\_\_
- C. \_\_\_\_\_ 2 = 13
- 15. Paul eats 3 biscuits in the morning, 3 biscuits during the day and 3 biscuits after school. How many biscuits does he eat altogether?
- 16. Complete each of the following. For example:
  - a. OO + OO + OO = OOOOOO2 + 2 + 2 = 6
  - b. 000 + 000 + 000 = \_\_\_\_\_

\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

C. 0000 + 0000 + 0000 = \_\_\_\_\_

\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

17. Draw two equal groups of circles in each of the following.

a.	00000	000
b.	0000	
C.	0000 0000	
d.	00000 00000	

18. How many groups of <u>three</u> balloons each are in the picture?



19. Look at the picture and share the eats equally between the number of girls. Write down how many each will get.

a. Each one gets apples.
b. Each one gets sweets.
c. Each one gets ice creams.
d. Each one gets pears.

20. Share 11 apples equally between 2 children.



a. How many apples does each child get? \_\_\_\_\_.

b. How many apples are left over? \_\_\_\_\_.

## Money

1. Complete the following.

	I	buy	I have spent
a.	<b>4</b> 10c	<b>5</b> c	
b.	R5	R2	
C.	30c	50c	
d.	<b>R</b> 10	R6	

2. Peggy bought a book for R3 and crayons for R9. How much change did she get if she paid with a R20 bank note?

- 3. Write down the total amount in each of the following.
  - a. R 5 + R 4 = \_\_\_\_\_
  - b. 20c + 15c = \_\_\_\_\_
- 4. How many 5c coins make 20c?



5. One chicken costs R4. How much will 4 of the same chickens cost?

## Patterns, Functions and Algebra

1. Draw the next 2 shapes or objects in each row.

а.	=	
b.		
C.	0000	

### Space and shape

 Look at the pictures below. Circle the objects that roll. Make a "X" over the objects that slide.



2. Answer the following questions using the words "Yes" or "No"



3. Use the words "in front of" or "behind" to complete each sentence.



4. Which animal is to the right of the arrow?



5. Draw the other part of the figure to make it symmetrical.



6. Does the picture show symmetry? Circle the word of the correct answer.



Yes No

7. Draw the line of symmetry in the shape.



### Measurement

1. Look at the calendar and answer the questions that follow.

Sunday	Monday	Tuesday	Wednes	day	Thurse	day	Friday	Saturd	ay
				1	C	2	3		4
5	6	7	-	8		9	<del>C</del> 10	÷.	11
<b>12</b>	ت 13	14	- Alton	15		16	17		18
19	<b>2</b> 0	<del>@</del> 21		22		23	24		25
26	<b>27</b>	28		29	Q	30			

## June 2011

- a. There were \_\_\_\_\_\_ sunny days during June 2011.
- b. It rained on \_\_\_\_\_ days during June 2011.

2. Arrange the objects in the pictures from the longest to the shortest by writing 1, 2, 3, 4 under each of them.



3. Circle the picture showing the longest fish.



- 4. Underline the word of the correct answer. Which is the longest?
  - a. A ruler or a match stick?
  - b. A crayon or your book?

## Data handling

- 1. 1111 means 4, 1441T means 5, and 1444T 1 1 means 7. Draw tally marks for each of the following numbers.
  - a. 3
  - b. 10
  - c. 6
  - d. 12

2. Look at the pictograph and answer the questions that follow.

## Key: 🙂 means 1 learner

Learner's pets

	Number of Learners
Dog	:) :) :)
Cat	
Fish	:)
Bird	:) (:) (:) (:)

a. How many learners have fish?

\_\_\_\_

- b. How many more learners have cats than dogs?
- c. How many learners were questioned altogether?