



**basic education**

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Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

# **ANNUAL NATIONAL ASSESSMENT**

## **GRADE 2**

## **MATHEMATICS**

## **TERM 1: 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 from curriculum work 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 assessments that learners must undergo on a continuous basis and do not replace them.

### 2. The structure of exemplar questions

The exemplars are designed to illustrate different techniques or styles of assessing the same skills and/or knowledge. For instance, some 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.). So, if teachers and learners find a number of exemplar questions that are structured differently but are asking the same thing, they should understand that this is deliberate and learners must respond to all the exemplar questions. Exposure to a wide variety of questioning techniques or styles gives learners the necessary confidence to confront tests.

### 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 Grades R to 12 (NCS), the provisions of the Curriculum and Assessment Policy Statements (CAPS) for the relevant grades and the National Protocol for Assessment. Together these documents, plus any others that a school may provide, make up a rich resource base to help teachers in planning lessons and conducting formal assessment (assessment of learning).

### 4. How to use the exemplars

While the exemplars for a grade and a subject have been compiled into one comprehensive set, the teacher does not have to give the whole set to the learners to respond to 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 time for instruction 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 then 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 up to a full test depending on the work that has been covered at a particular point in time. The important thing is to ensure that learners eventually get sufficient practice in responding to full tests of the type of the ANA model test.

## **5. Memoranda or answering guidelines**

A typical example of the expected response (memorandum) has been given for each exemplar test question and for the ANA model test. Teachers must bear in mind that the memoranda can in no way be exhaustive. Memoranda 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**

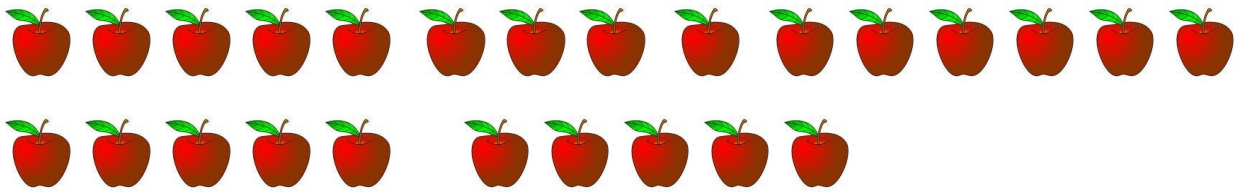
It is extremely critical that the curriculum must be covered in full in every class. The exemplars for each grade and subject do not represent the entire curriculum. They merely **sample** important knowledge and skills and only for work that covers terms 1, 2 and 3 of the school year. The pacing of 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, staying the same or declining. 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. Look at the picture and answer the questions that follow.



- a. Count the apples and write the correct number symbol. \_\_\_\_\_
  - b. How many groups of five (5) apples are there \_\_\_\_\_
  - c. How many groups of ten (10) apples are there?  
\_\_\_\_\_
  - d. How many groups of two (2) apples are there?  
\_\_\_\_\_
2. Fill in the missing numbers.  
20, \_\_\_\_\_, 22 \_\_\_\_\_, \_\_\_\_\_, 25

3. Complete the following number patterns.

a. \_\_\_\_\_ ; 16 ; 18 ; \_\_\_\_\_ ; \_\_\_\_\_ ; 24.

b. 22 ; \_\_\_\_\_ ; \_\_\_\_\_ ; 19 ; \_\_\_\_\_ ; 17.

4.



Pack the beans shown in the picture into 4 baskets so that there is the same number in each basket.

How many beans will you pack into each basket?

5. Write down the next number in each sequence.

a. 5 ; 10 ; 15 ; \_\_\_\_\_

b. 4 ; 6 ; 8 ; \_\_\_\_\_

6. a. \_\_\_\_\_ ; 10 ; 11 ; 12

b. \_\_\_\_\_ ; 20 ; 21 ; 22

c. \_\_\_\_\_ ; 15 ; 20 ; 25

d. \_\_\_\_\_ ; 20 ; 22 ; 24

7. Write down the number name of each of the following number symbol

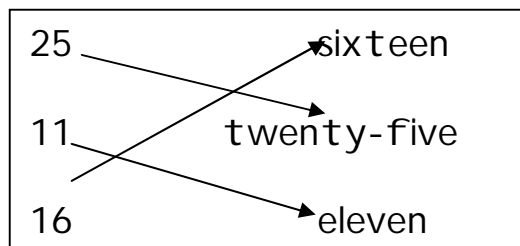
a. 13 \_\_\_\_\_

b. 20 \_\_\_\_\_

c. 23 \_\_\_\_\_

8. Draw arrows to match the number symbols with the number names.

You are given an example.



- a. 22                      eight
- b. 18                      twelve
- c. 8                        twenty-two
- d. 12                      eighteen

9. Write the number symbols of the following number names.

a. twentyone \_\_\_\_\_

b. nine \_\_\_\_\_

c. thirteen \_\_\_\_\_

d. seven \_\_\_\_\_

9. Write the whole number that comes between the given number

a. 

19		21
----	--	----

b. 

23		25
----	--	----

11. Write the words '**is smaller than**', '**is greater than**' and '**is equal to**' between the following pairs of numbers to make correct sentences.

a. 22 \_\_\_\_\_ 12

b. 12 \_\_\_\_\_ 12

c. 11 \_\_\_\_\_ 21

12. Write the numbers from the **smallest to the biggest**.

a. 9            25            7            6            13  
\_\_\_\_\_

b. 6            17            19            8            12  
\_\_\_\_\_

c. 22            20            12            18            24  
\_\_\_\_\_

13. Write the numbers from the **biggest to the smallest**.

a. 11            23            18            10            15  
\_\_\_\_\_

b. 15            20            5            25            10  
\_\_\_\_\_

c. 13            18            15            21            12  
\_\_\_\_\_

14. Write the value of each of the underlined digits.

a. 21            \_\_\_\_\_

b. 18            \_\_\_\_\_



15. a. What does the digit 2 represent in the number 24? \_\_\_\_\_
- b. What does the digit 4 represent in the number 24? \_\_\_\_\_
- c. 1 ten and 9 ones make the number \_\_\_\_\_.

16. Write the correct answer in the box by breaking down or building up the given number.

a.  $22 = \square + 2$

b.  $17 = 10 + \square$

17. Fill in the empty boxes using tens and units to complete the sum.

a.  $13 = \square + \square$

b.  $25 = \square + \square$

c.  $5 = \square + \square$

18. Add the following numbers:

a. adding on from the bigger number

$$5 + 13 = \underline{\hspace{2cm}}$$

b. using the near doubles

$$6 + 5 = \underline{\hspace{2cm}}$$

c. filling up a ten

$$8 + 7 = \underline{\hspace{2cm}}$$

19. Double the following numbers.

a. 4                      b. 9                      c. 10                     

20. Double each of the following numbers by writing an addition number sentence.

a. 6 :   +  =

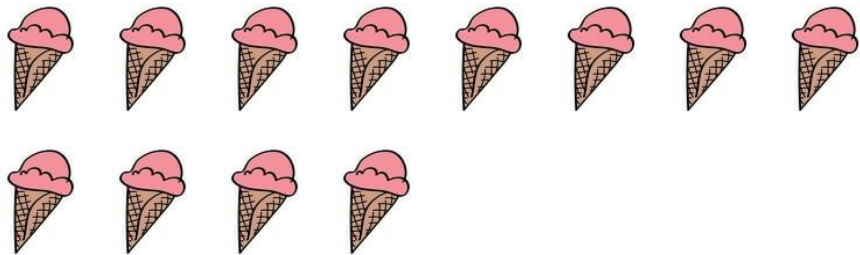
b. 8 :   +  =

21. a. Which number is 10 more than 9 \_\_\_\_\_.
- b. Which number is 10 more than 10 \_\_\_\_\_.
- c. Which number is 10 more than 17 \_\_\_\_\_.
- d. Which number is 5 more than 11 \_\_\_\_\_.

### PROBLEM-SOLVING

1. a. How much is 18 more than 11 \_\_\_\_\_.
- b. If you add 7 to a certain number the answer is 14. What is the other number? the other number is \_\_\_\_\_.
- c. Mary has 19 marbles. She has 5 fewer marbles than John. How many marbles does John have? \_\_\_\_\_.

2. a. Share 12 ice cream cones equally between 2 friends.



- b. If you share 11 pencils equally between Mary and Anne, Mary will get \_\_\_\_\_pencils and Anne will get \_\_\_\_\_ pencils and \_\_\_\_ will remain
- c. How many legs do 4 horses have?
- d. Lisa planted 5 peach trees in 4 rows. How many peach trees did she plant altogether?..... .

## CALCULATIONS INVOLVING MONEY

1. Two 5c coins have the same value as one \_\_\_\_\_ coin.

Two R10 notes have the same value as one \_\_\_\_\_ note.

The total of 10c + 10c + 10c is \_\_\_\_\_.

Complete: R10 + R5 = \_\_\_\_\_.

Complete the following table:

Price of article	Paid with	Change
40c	50c	
35c	40c	
R1	R2	

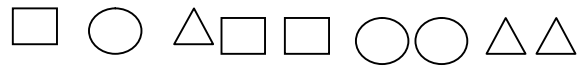
2. a. Suzy has 20c. Her mother gives her 30c. How much money does Suzy have now? Suzy has \_\_\_\_\_ cents.
- b. R1 shared equally between 2 girls means each girl gets \_\_\_\_\_.
- c. 40c shared equally between 4 means each girl gets \_\_\_\_\_.
- d. The price of 1 books is R2 . What will the price of 6 books be? \_\_\_\_\_.

# PATTERNS, FUNCTIONS AND ALGEBRA

1. a. Draw the next shapes in the pattern.

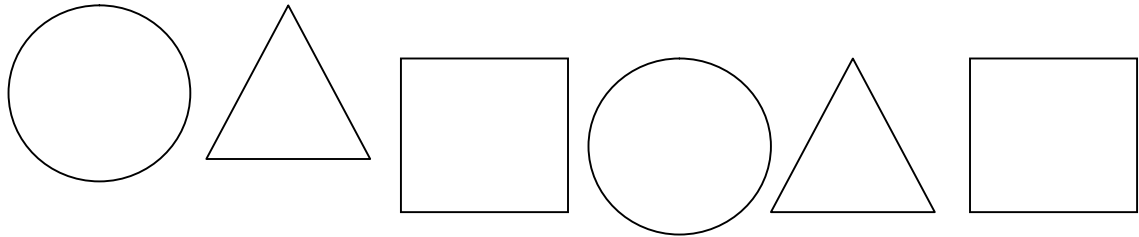


b. Draw the next 3 diagrams in the pattern.



\_\_\_\_\_

c. Copy the following pattern.



d. Draw the next shapes in the 'growing' pattern.



2. Complete the tables

a.

	1	2	3	4	5	6
*5	5			20		

b.

*	1	2	3	4	5	6
*2	2	4		28		

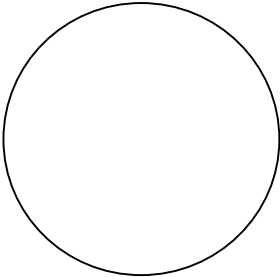
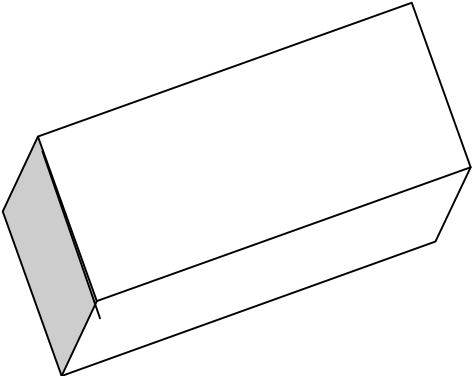
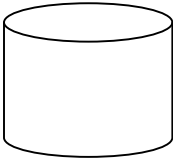
3. Write down the next 2 numbers in each pattern.

a. 20 ; 15 ; 10 ; \_\_\_\_\_ ; \_\_\_\_\_.

b. 18 ; 16 ; 14 ; \_\_\_\_\_ ; \_\_\_\_\_.

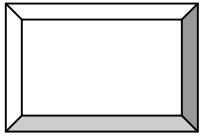
**SPACE AND SHAPE**

1. Draw a line between the picture of each article and its matching shape.

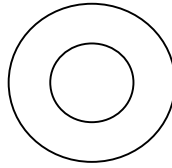




2. Draw a circle around the object that can slide.

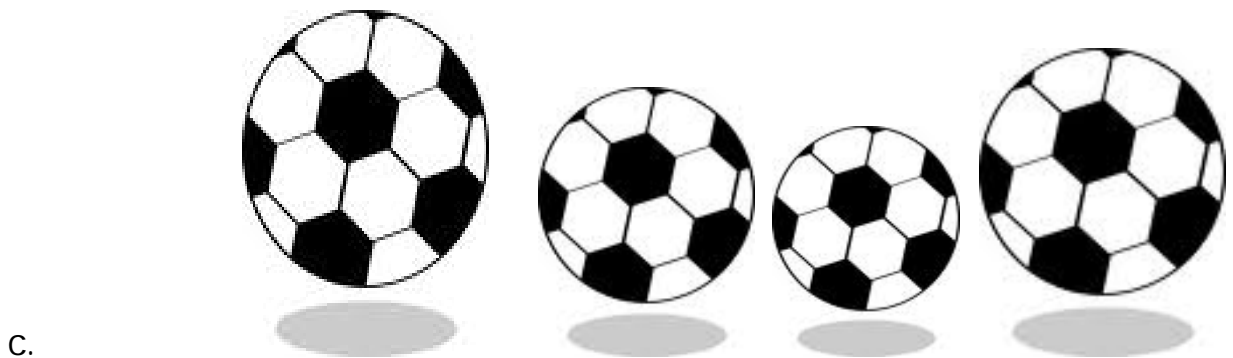
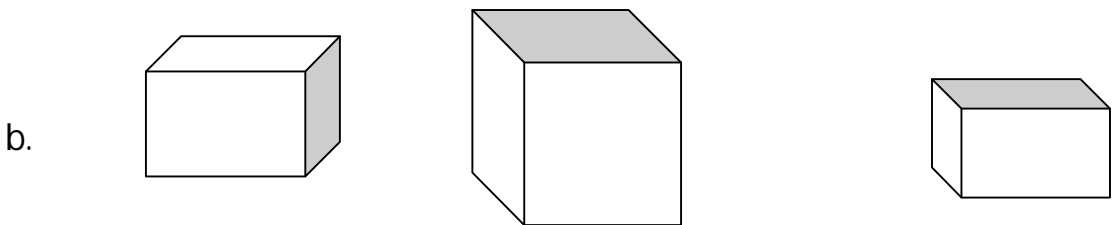
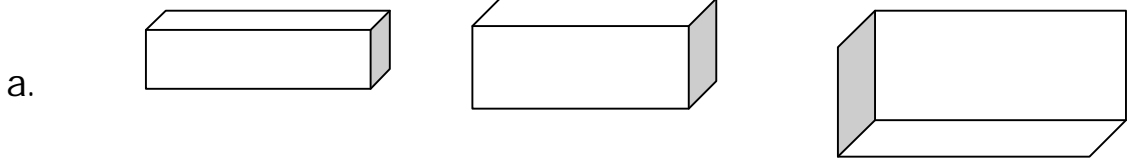


Picture



Wheel

3. In each of the following groups of 3-D objects, mark the largest object with a cross (X) and mark the smallest object with a tick (✓).

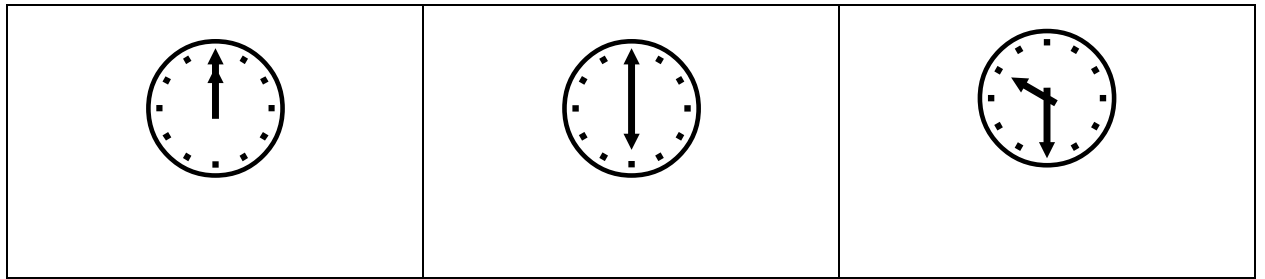


4.
  - a. How many of the 10 objects in question 3a, 3b and 3c have only flat faces? \_\_\_\_\_
  - b. How many of the 10 objects in question 3a, 3b and 3c have only round faces?
  - c. Can the objects in question 3(c) slide or roll?  
\_\_\_\_\_

### MEASUREMENT (TIME AND LENGTH)

1.
  - a. There are \_\_\_\_\_ days in a week
  - b. The names of the days of the week are Sunday, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ Saturday
  - c. Monday, \_\_\_\_\_, Wednesday, \_\_\_\_\_.
  - d. \_\_\_\_\_, Thursday, \_\_\_\_\_, \_\_\_\_\_ Saturday.
2. How many days are there between
  - a. Monday and Friday? \_\_\_\_\_.
  - b. Sunday and Thursday \_\_\_\_\_.

3. Write down the correct time under each clock.



a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

4. Bongsi left for school at 7 o'clock in the morning. She came back home at 3 o'clock in the afternoon. How many hours was she gone?

\_\_\_\_\_

5. Look at the lengths of the 4 lines to see how long each of them is and then answer the questions without measuring the lines.

Line A \_\_\_\_\_

Line B \_\_\_\_\_

Line C \_\_\_\_\_

Line D \_\_\_\_\_

- a. Line \_\_\_\_\_ is longest.
- b. Line \_\_\_\_\_ is shortest and line \_\_\_\_\_.
- c. Line C is longer than line \_\_\_\_\_.
- d. Line A is shorter than line \_\_\_\_\_ but longer than line \_\_\_\_\_ and \_\_\_\_\_.
- e. Arrange the lines from the longest to the shortest by writing down the letters that represent them.
- f. Arrange the lines from the shortest to the longest by writing down the letters that represent them.

\_\_\_\_\_

1. **DATA HANDLING**

Matome asked 18 boys in his class about their favourite TV programmes. He listed their answers by writing:


S for sport, N for news, D for drama and R for religion.

S	N	D	D	R	N	R	D	S
R	S	N	R	S	S	D	S	R

How many boys chose the following as their favourite TV programme:

- a. Sport \_\_\_\_\_
- b. Drama \_\_\_\_\_
- c. Religion \_\_\_\_\_
- d. News \_\_\_\_\_

Use the information in Question 1 to draw a pictograph, and then complete the sentences that follow.

Key: Use (  ) to represent 1 boy.

### FAVOURITE TV PROGRAMME

Number of boys				
		Sport	Drama	Religion
TV PROGRAMME				

2. a. Most of the boys chose \_\_\_\_\_.
- b. The least number of boys chose \_\_\_\_\_.
- c. The difference between the number of boys who chose sport and the number of boys who chose news is \_\_\_\_\_.