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# West African Examinations Council

## WAEC Syllabus for Mathematics & Recommended Textbooks 2023/2024

Updated on August 10, 2022 by Blessing Olarewaju

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### 5 Common Cat Behaviours And What They Mean

The WAEC syllabus for Mathematics is the topic you must study to sit for the examination. It contains the aims and objectives, notes and [format for the Mathematics exam](#).

Studying the [Mathematics syllabus](#) is necessary for your exam preparation. It will serve as a guide for you to know the topics to read. There are also notes on concepts you should pay attention to learning.

Exam preparations without using the [Mathematics syllabus](#) are like going to the farm without your agricultural tools. You will end up not being productive.

Ensure you [begin your exam preparations using the syllabus](#).

This post contains the [Mathematics syllabus](#) and recommended textbooks of the [West African Examination Council \(WAEC\)](#).

Let me know in the comment section if you have any questions. I will love to hear from you.

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## WAEC Mathematics

### Aim of the Syllabus

The aims of the syllabus are to test candidates:

1. mathematical competency and computational skills;
2. understanding of mathematical concepts and their relationship to the acquisition of entrepreneurial skills for everyday living in the global world;
3. ability to translate problems into mathematical language and solve them using appropriate methods;
4. ability to be accurate to a degree relevant to the problem at hand;
5. logical, abstract and precise thinking.

This syllabus is not intended to be used as a teaching syllabus. Teachers are advised to use their own National teaching syllabuses or curricula for that purpose.



## Paper 1

Will consist of fifty multiple-choice objective questions, drawn from the common areas of the syllabus, to be answered in 1½ hours for 50 marks.



## Paper 2

Will consist of thirteen essay questions in two sections – Sections A and B, to be answered in 2½ hours for 100 marks.

Candidates will be required to answer ten questions in all.

### Section A

Will consist of five compulsory questions, elementary in nature carrying a total of 40 marks.

The questions will be drawn from the common areas of the syllabus.

The questions shall include a maximum of two which shall be drawn from parts of the syllabuses which may not be peculiar to candidates' home countries.

Candidates will be expected to answer five questions for 60marks.

## WAEC Mathematics Syllabus

The topics, contents and notes are intended to indicate the scope of the questions which will be set.

The notes are not to be considered as an exhaustive list of illustrations/limitations.

### Number and Numeration

1. Number bases
2. Modular Arithmetic Fractions, Decimals and Approximations
3. Indices
4. Logarithms
5. Sequence and Series
6. Sets
7. Logical Reasoning
8. Positive and negative integers, rational numbers
9. Surds (Radicals)
10. Matrices and Determinants
11. Ratio, Proportions and Rates
12. Percentages
13. Financial Arithmetic
14. Variation

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3. Solution of Linear Equations
4. Change of Subject of a Formula/Relation
5. Quadratic Equations
6. Graphs of Linear and Quadratic functions.
7. Linear Inequalities
8. Algebraic Fractions
9. Functions and Relations

## **Mensuration**

1. Lengths and
2. Perimeters
3. Areas
4. Volumes

## **Plane Geometry**

1. Angles
2. Angles and intercepts on parallel lines.
3. Triangles and Polygons.
4. Circles
5. Construction
6. Loci

## **Coordinate Geometry of Straight Line**

1. Concept of the x-y plane.
2. Coordinates of points on the x-y plane

## **Trigonometry**

1. Sine, Cosine and Tangent of an angle.
2. Angles of elevation and depression
3. Bearings

## **Introductory Calculus**

1. Differentiation of algebraic functions.
2. Integration of simple Algebraic functions

## 2. Probability

# Vectors and Transformation

1. Vectors in a Plane
2. Transformation in the Cartesian Plane

# WAEC Mathematics Units

Candidates should be familiar with the following units and their symbols.

## Length

- 1000 millimetres (mm) = 100 centimetres (cm) = 1 metre(m).
- 1000 metres = 1 kilometre (km)

## Area

- 10,000 square metres (m<sup>2</sup>) = 1 hectare (ha)

## Capacity

- 1000 cubic centimeters (cm<sup>3</sup>) = 1 litre (l)

## Mass

- 1000 milligrammes (mg) = 1 gramme (g)
- 1000 grammes (g) = 1 kilogramme( kg )
- 1000 ogrammes (kg) = 1 tonne.

## Currencies

- The Gambia – 100 bututs (b) = 1 Dalasi (D)
- Ghana – 100 Ghana pesewas (Gp) = 1 Ghana Cedi ( GH¢)
- Liberia – 100 cents (c) = 1 Liberian Dollar (LD)
- Nigeria – 100 kobo (k) = 1 Naira (N)
- Sierra Leone – 100 cents (c) = 1 Leone (Le)
- UK – 100 pence (p) = 1 pound (£)
- USA – 100 cents (c) = 1 dollar (\$)
- French Speaking territories: 100 centimes (c) = 1 Franc (fr)



## Use of Mathematical and Statistical Tables

Mathematics and Statistical tables, published or approved by [WAEC](#) may be used in the examination room.

Where the degree of accuracy is not specified in a question, the degree of accuracy expected will be that obtainable from the mathematical tables.

## Use of Calculators

The use of non-programmable, silent and cordless calculators is allowed.

The calculators must, however not have the capability to print out nor to receive or send any information.

Phones with or without calculators are not allowed.

## Other Information

Candidates should bring rulers, pairs of compasses, protractors, set squares etc required for papers on the subject.

They will not be allowed to borrow such instruments and any other material from other candidates in the examination hall.

Graph papers ruled in 2mm squares will be provided for any paper in which it is required.

## Disclaimer

In spite of the provisions made in paragraphs 4 (1) and (2) above, it should be noted that some questions may prohibit the use of tables and/or calculators.

## WAEC Mathematics Textbooks

Here is the list of WAEC recommended textbooks for Mathematics;

- Adelodun A. A (2000) ***Distinction in Mathematics: Comprehensive Revision Text***, (3rd Edition) Ado Æ-Ekiti: FNPL.
- Anyebe, J. A. B (1998) ***Basic Mathematics for Senior Secondary Schools and Remedial Students in Higher/ institutions***, Lagos: Kenny Moore.
- Channon, J. B. Smith, A. M (2001) ***New General Mathematics for West Africa SSS 1 to 3***, Lagos: Longman.
- David Æ-Osuagwu, M. et al (2000) ***New School Mathematics for Senior Secondary Schools***, Onitsha: Africana – FIRST Publishers.
- Egbe. E et al (2000) ***Further Mathematics, Onitsha***: Africana Æ– FIRST Publishers.
- Ibude, S. O. et al (2003) ***Algebra and Calculus for Schools and Colleges***: LINCEL Publishers.
- Tuttuh Æ– Adegun M. R. et al (1997), ***Further Mathematics Project Books 1 to 3***, Ibadan: NPS Educational.

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### Blessing Olarewaju

I am an Enthusiastic SEO Writer engineering helpful skyscraping content on the internet. A lifelong learner who loves to read, learn and write.

...

## 14 thoughts on “WAEC Syllabus for Mathematics & Recommended Textbooks 2023/2024”

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**Ajuzie Daniel**

January 2, 2023 at 7:16 pm

Is there a possibility of the government changing the syllabus for any subject/waec timetable

[Reply](#)**Blessing Olarewaju**

January 3, 2023 at 6:59 pm

No, Daniel

The topics in this post are correct.

[Reply](#)**dorcas**

November 25, 2022 at 5:53 pm

can i use this syllabus for this year mathematics GCE WAEC

[Reply](#)**Blessing Olarewaju**

November 25, 2022 at 10:46 pm

... ..

[X](#)

[Reply](#)**Yusuf Nana firdausi**[November 17, 2022 at 8:19 pm](#)

Can I use this same syllables for jamb

[Reply](#)**Blessing Olarewaju**[November 18, 2022 at 11:50 am](#)

See the JAMB syllabus here;

[JAMB Syllabus for All UTME Subjects 2023/2024](#)

[Reply](#)**Adeola**[September 28, 2022 at 6:00 am](#)

Hi

Can i use this for the preparation of GCE also?

[X](#)

[Reply](#)

**Chiamaka Anaekwe**

[September 28, 2022 at 11:56 am](#)

Hello Adeola,

You can. The standard of examination of both bodies is the same.

[Reply](#)

**Shagba Terkuma Ephraim**

[September 15, 2022 at 6:41 pm](#)

Is it recommended for external or private candidates?

[Reply](#)



**Chiamaka Anaekwe**

September 16, 2022 at 9:32 am

Dear Shagba,

It is recommended for all WAEC candidates.

[Reply](#)

**Elo**

September 14, 2022 at 4:36 pm

Is this the waec syllabus for next year 2023

[Reply](#)

**Chiamaka Anaekwe**

September 14, 2022 at 7:28 pm

Dear Elo,

X

[Reply](#)**Abiola Qudus**[June 8, 2022 at 9:36 am](#)

Please what if I didn't finish the first section, which is compulsory in the essay in mathematics will I be penalized

[Reply](#)**Blessing Olarewaju**[June 8, 2022 at 11:04 am](#)

Qudus,

You would not be penalized. Rather you will lose the marks.

Wish you success in your JAMB examinations.

[Reply](#)[X](#)



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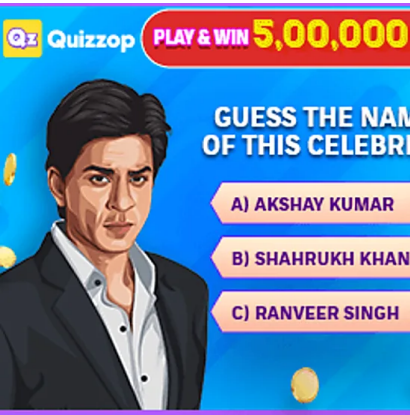
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