

Brussels, the 4th of June 2025.

MEMORANDUM

Ref.: 2025-06-M-2-en

Orig.: EN

Cancels and replaces Memorandum 2024-05-M-5 of the 4th of June 2024.

To: Directors, Deputy Directors for the secondary cycle of the European Schools and of the Accredited European Schools.

From: Manuel BORDOY VERCHILI – Deputy Secretary-General.

Subject: **Decision regarding the Technological support matching the characteristics required by the new Mathematics and Physics syllabuses. *Digital tools for learning, teaching, and assessment.***

Decision regarding the Technological support that can be used for other scientific subjects for learning, teaching, and assessment.

Dear Madam,
Dear Sir,

I hereby transmit to you:

1/ the decision of the group of experts responsible for the choice of the technological support to be implemented in the Mathematics and Physics syllabuses from the beginning of the school year 2024-2025, and for the following school years, until a new decision replaces it¹. This is a follow-up of the approval by the Joint Teaching Committee on the 14th of June 2022 through the written procedure 2022/27 (Doc. ref.: "A digital tool for teaching, learning and assessment in Mathematics and Physics" 2022-05-D-45).

2/ the decision concerning the Authorised Material for B-tests and harmonised examinations in s5 and s6 for Biology, Economics, Geography and Chemistry from the beginning of the school year 2025-2026. This is a follow-up of the approval by the Joint Board of Inspectors on the 11th and 12th of February 2025, through an accelerated procedure during its meeting (Doc. ref.: "Summative assessment from s4 to s6 in the European Schools: Pedagogical and organisational arrangements" 2022-12-D-19).

¹ See Memorandum 2024-05-M-5.

Decision

For the Mathematics and Physics syllabuses from school year 2024-2025 and subsequent years:

Level s4:

A scientific calculator with, at least, the “sin”, “cos” and “tan” trigonometric functions.

However, it is left to the discretion of the schools to anticipate the purchase of a model corresponding to the recommendations for level s5.

Levels s5, s6 and s7:

For B-tests, examinations, and classwork: A **graphic scientific calculator**.

The parameters/technical specifications of this scientific calculator are indicated in [appendix 1](#) of the present document.

For classwork only: Use of various **apps** in accordance with the syllabus (programming, spreadsheets, dynamic geometry, data processing, etc.). **No specific device should be purchased by the families for this purpose.** A device provided by the school (specific room, trolleys, or general equipment), a personal device within the framework of a BYOD project, or a personal smartphone may be used, the same would be applicable for years s1 to s4. These devices may also by decision of the school be used during assessments which contribute to the A marks.

For the other scientific subjects - Biology, Economics, Geography and Chemistry - from school year 2025-2026:

Level s4:

A scientific calculator: the same as for the Mathematics and Physics syllabuses.

Levels s5, s6 and s7:

For B-tests, examinations, and classwork: A **non-graphing and non-programmable scientific calculator**.

Please, feel free to use the text above in your school's list of books and materials for the school year 2025-2026 and subsequent years.

In addition:

- 1.- In accordance with the Mathematics and Physics syllabus for years s4 to s7, GeoGebra and other applications will be used in the classroom.
- 2.- It is the responsibility of the school to ensure that the technological tool (calculator) is only used properly and fairly for the purpose of the exam, for example by using test mode or reset of memory where applicable or other relevant measures.
- 3.- It is recommended to have some spare technological tools (calculators) available for the candidates in the examination hall, in case of their own malfunctions. Candidates should be familiar with the spare technological tools available in the school before the exam."

Summary

MATHEMATICS AND PHYSICS:

	Classwork	Examinations
s1-s3	Scientific calculator <i>and apps</i>	Scientific calculator
s4	Scientific calculator <i>and apps</i>	Scientific calculator
s5	Graphic calculator <i>and apps</i>	Graphic calculator
s6	Graphic calculator <i>and apps</i>	Graphic calculator
s7	Graphic calculator <i>and apps</i>	Graphic calculator

BIOLOGY, ECONOMICS, GEOGRAPHY AND CHEMISTRY

	Classwork	Examinations/B-tests
BIOLOGY, ECONOMICS, GEOGRAPHY		
s4	A scientific calculator	A scientific calculator
s5-s6-s7	A non-graphing and non-programmable scientific calculator	A non-graphing and non-programmable scientific calculator
CHEMISTRY		
	A non-graphing and non-programmable scientific calculator <i>Periodic Table</i>	A non-graphing and non-programmable scientific calculator <i>Periodic Table</i>

The Pedagogical Development Unit remains at your disposal for any questions you may have.

We would appreciate it a lot if you could transmit this memorandum to all those concerned.



Manuel BORDOY VERCHILI
Deputy Secretary-General

Annex 1: Parameters/technical specifications of the calculator in s5/s6/s7 for 2025-2026.

Copy: "Working group: Experts in charge of the choice of the technological support" and responsible Inspectors for other scientific subjects.

APPENDIX 1

TECHNICAL SPECIFICATIONS OF THE CALCULATOR IN s5, s6 AND s7 – FROM 2025-2026.

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Required functionalities:

- Trigonometric functions
- Exponential & logarithm
- Numerical equation(s) solving
- 1-Var & 2-Var Statistics
- Factorials & combinations
- Binomial distribution
- Normal distribution
- Functions : Table of values
- Numeric integration
- Numerical differentiation
- Graphing

Forbidden functionality:

- Computer Algebra System

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Fonctionnalités requises:

- Fonctions trigonométriques
- Exponentielle et logarithme
- Résolution d'équation(s) numérique(s)
- Statistiques à 1 et 2 variables
- Factorielles et combinaisons
- Distributions binomiales
- Distributions normales
- Fonctions: Tableau de valeurs
- Intégration numérique
- Différenciation numérique
- Graphiques

Fonctionnalités interdites :

- Calcul formel