S E N A T E

Senate Bill No. __79__

Introduced by Senator Aquilino "Koko" Pimentel III

AN ACT
MANDATING AGE-APPROPRIATE COMPUTER PROGRAMMING SUBJECTS IN THE CURRICULUM OF THE ENHANCED BASIC EDUCATION PROGRAM (K-12), APPROPRIATING FUNDS THEREFOR, AND FOR OTHER PURPOSES

<u>EXPLANATORY NOTE</u>

For the Filipino Nation to compete and thrive in the highly scientific world and high-tech marketplace of the 21st century, our country must be able to keep itself abreast with the latest developments in science.

We must expose our students as early as possible to science subjects and make it possible for them to love science and live scientifically. One field of science which we need to expose our students to and prepare them to compete in is computer science, particularly the subject of computer programming.

This bill seeks to integrate the study of computer programming (which is broader than computer coding) in the enhanced basic education curriculum. Since this is a highly complex subject matter, we will do this slowly, strategically, and in an age-appropriate manner, and it is suggested that we begin this at the Grade 4 level.

By introducing the fundamentals of computer programming to our students, as early as possible and in an age-appropriate manner, we hope to make computer programming and coding second nature to them as they grow up. In so doing, we are effectively equipping them with the proper tools needed to make them capable digital-age citizens and also preparing them to be globally competitive.

Early exposure of our students to science, computer science, and computer programming can only be beneficial to our country. Hence, the immediate passage of this measure is earnestly requested.

AQUILINO "KOKO" PIMENTEL III

NINETEENTH CONGRESS OF THE)   Senate
REPUBLIC OF THE PHILIPPINES)   Office of the Secretary
First Regular Session)

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THEREFOR, AND FOR OTHER PURPOSES

Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

1   **SECTION 1.** *Short Title.* – This Act shall be known as the "*Philippine*
2 *Computer Programming Education Act.*"
3
4   **SEC. 2.** *Declaration of Policy.* – It is the policy of the State to give priority
5 to education, and science and technology, in order to accelerate social progress
6 and promote total human liberation and development. The education to be
7 provided to the Filipino People must be complete, adequate, and relevant to the
8 needs of the people and society.
9
10   Likewise, it is hereby declared the policy of the State to develop a
11 functional basic education system that will keep Filipino students informed and
12 up-to-date with the latest developments in the field of science, particularly
13 computer science, in order to make our basic education students and graduates
14 better prepared to live in, work, be productive and compete in a highly scientific
15 modern global society.

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SEC. 3. *Definition of Terms.* – For the purposes of this Act, the following terms shall be defined as follows:

    (a) *"Computer"* - a programmable electronic machine or device that responds to specified instructions and can execute a list of instructions known as a program. It shall include all the hardware or physical parts attached to the computer machine or device, and the software or programs used therewith.

    (b) *"Computer Programming"* - the process of using a language that a computer can understand in order to get it to perform various tasks. Its objective is to come up with an executable computer program resulting in a fully ready-to-use application.

SEC. 4. *Mandatory Age-Appropriate Computer Programming Subjects in the Enhanced Basic Education Curriculum.* – It is hereby mandated that age-appropriate computer programming subjects shall be an integral and essential part of the Department of Education's (DepEd) K to 12 Basic Education Curriculum beginning at Grade 4.

Age-appropriate computer programming shall be taught from Grades 4 to 12 as a separate subject with sufficient time allotment as would enable the students to appreciate the importance of computer programming in contemporary life and ensure that the foundational computer programming skills needed for higher level education are developed in the students as soon as practicable.

SEC. 5. *Role of the DepEd.* – The DepEd, in coordination with the Curriculum Consultative Committee created under Republic Act No. 10533, otherwise known as the "Enhanced Basic Education Act of 2013", shall formulate the necessary refinements in the Basic Education Curriculum to accommodate the age-appropriate computer programming subjects mandated by this Act. The appropriate skills to be developed per grade level must be clearly defined and identified under this revised curriculum.

The DepEd, in collaboration with relevant partners in government, academe, industry, and non-governmental organizations, shall conduct the necessary teacher education and training programs and provide the schools with the required equipment for the proper and effective implementation of this Act.

SEC. 6. *Appropriations.* – The amount necessary for the initial implementation of this Act shall be sourced from the current appropriations of the DepEd. Thereafter, the amount necessary for its continuous and effective implementation shall be provided in the annual General Appropriations Act.

SEC. 7. *Implementing Rules and Regulations.* – Within ninety (90) days from the effectivity of this Act, the DepEd, in consultation with relevant stakeholders, shall promulgate the necessary implementing rules and regulations for the effective implementation of this Act.

SEC. 8. *Separability Clause.* – Should any provision or part of this Act be declared unconstitutional or invalid, the other provisions and parts hereof, insofar as they are separable from the invalid ones, shall remain in full force and effect.

SEC. 9. *Repealing Clause.* – All laws, decrees, orders, issuances, rules and regulations or parts thereof which are inconsistent with this Act are hereby repealed or modified accordingly.

SEC. 10. *Effectivity.* – This Act shall take effect fifteen (15) days after its publication in the *Official Gazette* or in at least two (2) newspapers of general circulation.

Approved,